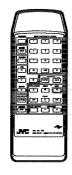
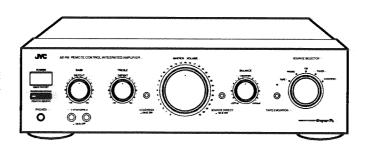
#### JVC

### SERVICE MANUAL

#### REMOTE CONTROL INTEGRATED AMPLIFIER

#### **AX-R5BK**





COMPU LINK
|||| Remote ||||
Control Component

#### **Contents**

Safety Precautions	1-2	Block Diagrams		1-15
Instruction Book	1-3	Schematic Diagrams	***************************************	1-16
Description of ICs		Printed Circuit Boards		
Disassembly Proceduers	1-13	Parts List	Separate-volume Ins	ertion
Power Amplifier Adjustment Proceduers				

#### Safety Precautions

- 1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
- 2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
- 3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (\(\Delta\)) on the Parts List in the Service Manual. The use of a substitute repalcement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
- 4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
- 5. Leakage currnet check (Electrical shock hazard testing)
  After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, contorl shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

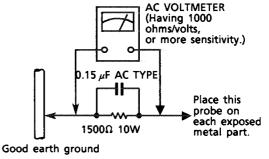
Do not use a line isolation transformer during this check.

- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester",
  measure the leakage current from each exposed metal parts of the cabinet, particularly
  any exposed metal part having a return path to the chassis, to a known good earth
  ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).
- Alternate check method

Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 $\Omega$  10 W resistor paralleled by a 0.15  $\mu$ F AC-type capacitor between an exposed metal part and a known good earth ground.

Measure the AC voltage across the resistor with the AC voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and meausre the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



#### -Warning

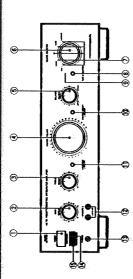
- 1. This equipment has been designed and manufactured to meet international safety standards.
- 2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
- 3. Repairs must be made in accordance with the relevant safety standards.
- 4. It is essential that safety critical components are replaced by approved parts.
- 5. If mains voltage selector is provided, check setting for local voltage.

# Description of Parts

Getting Ready

This section describes the names of the buttons, dials and other parts used during the operation of the amplifier and the remote control unit. The page number following each part indicates where detailed explanations are to be found.

# Main Unit of Your Amplifier



© LOUDNESS button (p. 11)
© SPEAKERS I and 2 buttons (p. 10)
© PHONES jack (p. 10)
© REMOTE SENSOR window
© POWER STANDBY/RECEIVED Power switch (turns power on/off) (p. 8) @ SOURCE DIRECT button (p. 11)

(2) BASS dial (p. 11)

TREBLE dial (p. 11)

MASTER VOLUME dial (p. 10)

BALANCE dial (p. 11)

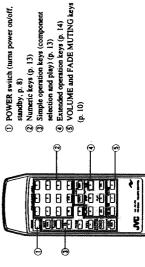
SOURCE SELECTOR dial (p. 9)

SOURCE SELECTOR indicator (p. 9)

TAPE 2 MONITOR button (p. 11)

TAPE 2 MONITOR pidicator (p. 11)

## Remote Control Unit



This section describes how to get ready to use your amplifier for the first time, such as connecting other stereo components and speakers, connecting the power supply,

and inserting batteries in the remote control unit.

## onents to Amplific Connecting Stereo Comp

## Confirming Right (Red) and Loft (White) Channels

When connecting any stereo components to your amplifier, make sure that their left and right channels are connected properly to the left-channel and right- channel jacks of the amplifier, espectively. If they are reversed, the correct stereophonic image will not be generated. Note: The right and left channels are normally represented by the colors red and white, respectively. Ensure correct connections by matching the colors of the plugs with the jacks.

Making Basic Connections Use RCA PIN plugs when connecting stereo components to the amplifier.

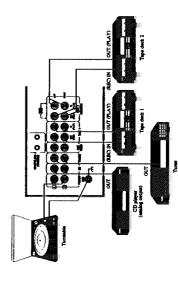
When connecting a tape deck to the amplifier, make the cable connections as follows:

(cable) TAPE DECK Output Jack Input jack

TAPE 1, 2: IN (PLAY) jack TAPE 1, 2: OUT (REC) jack AMPLIFIER

· When connecting a TV receiver (with audio jacks) or stereo components other than those listed below, use the AUXVIDEO jacks. A turntable, however, cannot be connected to these  When connecting a turntable, connect a ground cable (if fitted) to the GND screw on the rear panel of the amplifier.

· If you want to use a turntable with a small-output cartridge, such as the MC (moving-coil) type, you must use a commercial head amplifier or a step-up transformer before connecting it to the amplifier. A direct connection may result in insufficient volume.



Page 5

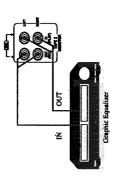
#### Connecting a Graphic Equalizer

You may connect a graphic equalizer to the amplifier instead of a second tape deck (TAPE 2). We recommend the use of JVC's S.E.A. graphic equalizer.

we recommend up use of 17 C a 3.2.c., graphic equalizer.

When connecting a graphic equalizer to the amplifier, make the cable connections as follows:

AMPLIFIER TAPE 2 MONITOR: IN (PLAY) jack TAPE 2 MONITOR: OUT (REC) jack



Note: For details on listening to a graphic equalizer, refer to p. 11 ("Using Graphic Equalizer").

From: For negatis on intenting for graphic equatizer, refer to p. 1711. Using Graphic Equatizer. J. Your amplifier features JVC's COMPU LINK remote control system, which links the operation of each IVC component in your system for easier listening and recording. Using connection cables (included separately with each of the components), connect the COMPU.

Using the COMPU LINK-3 SYNCHRO Jacks LINK-3 SYNCHRO jacks in the rear of the amplifier with the other JVC components in your

#### Notes

system, as illustrated below.

- COMPU LINK: 3 is an upgraded version of COMPU LINK: 1, used on earlier IVC audio components. You may use the COMPU LINK: 1 SYNCHRO jacks on older components to connect with the amplifier, though certain operations may not work correctly.
  - See pp. 12 for details on operating the COMPU LINK remote control system.
- The second tape deck (TAPE 2) cannot be linked to the COMPU LINK remote contor! system, so do not attach a COMPU LINK cable to it.
- Other types or audio equipment such as MD, DCC, DAT connot be linked to the COMPU LINK remote control system with the AX-RSBK, so do not attach COMPU LINK cables to them.



# Connecting Speakers to Amplifier

Confirming Proper Speaker You may connect up to two sets of speakers to the amplifier (four speakers in total).

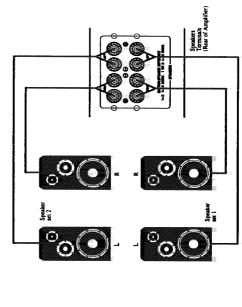
Note: Make sure to select speakers with the proper impedance; from 4Q to 16Q ohms). If you use two sets of speakers at once, the minimum allowable impedance is 8Q. Use the following procedure to connect the speaker cables to the SPEAKER terminals in the rear of the amplifier. Connect each cable separately.

Connecting speakers to Amplifier

Loosen the screw on the terminal by turning it counterclockwise.
 Insert the speaker cable into the terminal, as illustrated.
 Tighten the screw on the terminal by turning it clockwise to fasten the speaker cables

4. Repeat steps 1-3 for the other speaker cables

If you are connecting two sets of speakers to the amplifier, connect the first (main) pair of speakers to the bottom row of SPEAKERS terminals and the second set to the top row. Make the cable connections as follows:



Note: Make sure to match the polarity of the terminals on the speaker with that of the terminals on the amplifier; i.e., (+) to (+) and (-) to (-).

### Setting Proper Voltage



Depending on the region where the amplifier is bought, a voltage selector switch may be ncluded in the rear of the amplifier, as illustrated.

Connecting Power Suppl

If your amplifier includes this switch, make sure that it is set at the proper voltage for your region. If adjustment is needed, turn the switch using a Philips (+) screwdriver, aligning the estred voltage with the arrow in the LINE \$\ VOLTS message.

Vote: The voltage selector switch is not provided on the European model.

△CAUTION Incorrect setting of the voltage selector switch may cause malfunction or damage. Make sure that the voltage selector switch is set correctly before connecting the power supply.

# Connecting Power Supply

After checking all the cable connections and the voltage selector switch, insert the power cord of the amplifier into an outlet.

if the power supply is connected correctly, the POWER STANDBY indicator on the left of the front panel of the amplifier (under the power switch) will light up. The indicator, which remains lit even with the power turned off, consumes a very small amount of power (5W). To shut the power off completely, pull the power cord out of the outlet.

# ACAUTION Never handle the power cord with wet hands.



switched outlets on the right (as seen from the rear) that can be used to plug in the power cords

Using Outlets in Rear of Umplifier

When you turn on the amplifier, power will be supplied to these outlets. If the connected components have been previously turned on, turning the amplifier on will cause these components to turn on as well. As these are switched outlets, you cannot turn on the connected equipment when the amplifier is turned off. of other components in your stereo system.

 $\Delta extstyle{ t AUTION}$  Do not connect components requiring a combined capacity greater than the indicated maximum.







SWITCHED TOTAL MAX 288 W - AC OUTLETS --

For other areas

For the U.K.

For Continental Europe

# Inserting batteries

The remote control unit of the amplifier requires two batteries, which are shipped with the

Inserting Batteries into Remote Control Unit

Use the following procedure to insert batteries into the remote control unit:

Press down on the battery cover on the back of the remote control unit andslide it off.
 Insert the included batteries into the remote control unit. Confirm that the batteries are

3. Replace the battery cover by sliding it back on. oriented to the proper polarization (+ and -).







Replacing batteries

If you find that the range of the remote control unit is decreasing (normally set at 7m or 22ft), it is time to replace the batteries. Use R03/AAA (24F)/UM-4 type dry cells.

 Confirm that the batteries are oriented to their proper polarization.
 Use the correct type of batteries, as indicated above. Some batteries with the same size may Notes: The following precautions must be taken to avoid leaking or cracking batteries.

have the wrong voltage.

Replace both batteries simultaneously.
Do not heat or burn the batteries.

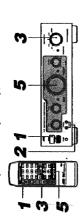
## Basic Operation

This section describes the procedure to be taken when using the amplifier to listen to a particular source. You may operate the amplifier directly using the buttons and dials on the amplifier, or by using the remote control unit.

## Operating Procedure

Use the following procedure to listen to a particular source using the amplifier. More detailed procedures are explained on the pages indicated.

Important! When operating the remote control unit, make sure to point it at the REMOTE SENSOR window under the POWER switch on the left side of the amplifier. The remote control unit can be used up to a distance of 7 m (22 ft).



The POWER STANDBY indicator will turn off, and the SOURCE SELECTOR indicator will Press the POWER switch on the amplifier or the remote contorl unit to turn it on.

1. Turn Power On

ight up, indicating that the amplifier is turned on.

Volse: Pressing the POWER switch again turns off the power but lights up the STANDBY indicator. A small amount of power (5 W) is consumed under these conditions even if the amplifier is turned off. To shut off the power completely, unplug the power cord from the outlet.

Use the SPEAKERS (1 or 2) buttons to select the set of speakers that you want to listen to. If no button is pressed, no sound will come from the speakers

2. Select Speakers or Meadpheases (p. 10)

f you want to use headphones, insert their plug in the PHONES jack on the bottom left of the front of the amplifier. Note: If one or both of the SPEAKERS buttons are pressed, the speakers will still emit sound when the headphones are used.

(press the TAPE 2 MONITOR button for the second tape deck (TAPE 2)), or by pressing the desired key on the remote control unit (TUNER, CD (\*), PHONO (\*\*), TAPE I (\*\*), TAPE select the source to listen to either by turning the SOURCE SELECTOR dial on the amplifier 2 MONITOR, or AUX/VIDEO).

. Select Listening/ Recording Seurce (p. 9)

Operate Source Equipment

Follow the directions for operating source equipment as printed in their respective instruction nanuals. f you are using JVC components linked to the amplifier with the COMPULINK system, they can also be operated using the remote control unit of the amplifier or through the SOURCE SELECTOR dial on the main amplifier unit. (See pp. 12-14 for further details on the COMPULINK system). To adjust the volume, either turn the MASTER VOLUME dial on the amplifier or press the VOLUME keys on the remote control unit. The FADE MUTING on the remote control unit can also be used for quick muting of the sound.

5. Adjust Volume, Tows, and Balance (pg. 10,11)

To adjust the bass or treble levels, turn the BASS or TREBLE dial, respectively on the amplifier. When the volume is low, press the LOUDNESS button on the amplifier to compensate for human bearing capacities at certain frequencies. To adjust the balance between left and right speakers, rum the BALANCE dial.

## Selecting Source

This section describes how to select the source for listening or recording from the various stereo components connected to the amplifier.

## Selecting Source for Listening

Turn the SOURCE SELECTOR dial on the amplifier to one of the listening sources as described below. The indicator lights up on the selected source.

Selecting Source for Listening SOUPCE SELECTOR

Select this to listen to a cassette in the tape deck connected to TAPE Select this to listen to a record. Select this to listen to a CD. PHONO: TAPE 1:

Select this to listen to the component connected to the AUX/VIDEO Select this to listen to the radio. jack of the amplifier. **AUX/VIDEO:** 

TUNER: ë

Note: The SOURCE SELECTOR dial can be continuously in either direction, as follows:



TAPE 2 MONITOR

To listen to the second tape deck (TAPE 2) press the TAPE 2 MONITOR button. The TAPE 2 MONITOR indicator will light up. Press the TAPE 2 MONITOR again to turn the indicator off. Note: When you switch the source with the TAPE 2 MONITOR on, the sound will be cut off momentarily. This does not indicate a problem.

Instead of using the SOURCE SELECTOR dial on the amplifier, you can also choose the listening source by using the remote control unit. Press one of the six keys on the left of the remote control unit — TUNER, CD (▶), PHONO (▶), TAPE I (▶), TAPE 2 MONITOR, or AUX/VIDEO — as illustrated left.

# Selecting Source for Recording

To select the source for recording, use the SOURCE SELECTOR dial on the amplifier or press one of the source keys on the remote control unit. Output will be made through the output jacks of both TAPE 1 and TAPE 2. However, the following combinations cannot be used:

Selecting Source for Recording

TAPE 1 OUTPUT TAPE 1 TAPE 2 TAPE 2 INPCT

Note: To dub from one cassene tape to another, place the source cassene in the first tape deck (TAPE 1) and a blank cassene in the second one (TAPE 2), set the SOURCE SELECTOR dial on TAPE I, and record with the second tape deck.

Page 9

# Adjusting Volume, Balance and Tone (and Loudness)

This section describes how to adjust the volume, balance, tone and loudness settings when istening to the selected source.

# Adjusting Volume and Selecting Speaker



speakers and headphones. Turn the dial clockwise to raise the volume and counterclockwise to lower it. Both left and right channels are adjusted simultaneously and to the same degree. You may also use the remote control unit to adjust the volume. Press the VOLUME + key to raise the volume and the VOLUME - key to lower it. The MASTER VOLUME dial on the amplifier is used to adjust the volume levels of the

#### 

Note: Adjusting the MASTER VOLUME dial has no effect on the recording level used for recording output.

#### **Auting Sound**



The FADE MUTING button on the remote control unit is used to lower the volume to the mute level. Press it when you need to mute the sound: for example, when the phone rings or a visitor calls.

- If the original volume level is extremely loud, pressing this key once may not lower it sufficiently. If so, press it again.
  - To raise the volume again, use the MASTER VOLUME dial on the amplifier or the VOLUME keys on the remote control unit.

The SPEAKERS 1 and 2 buttons on the amplifier are used to select which set of speakers to isten from. You may also listen to both sets of speakers, if desired, or none at all. Use the guide below to determine the listening arrangement.

Selecting Speakers 1 SPEAKERS 2 SPEAKER SET HEARD



ONBOFF

Insert the headphones into the PHONES jack under the POWER switch on the front of the amplifier. To listen to only the headphones and not the speakers, makes sure that both SPEAKERS 1 and 2 buttons are in the up (deactivated) position.

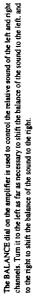
Listening to Headphones

O

none (headphones only)

1 & 2

# Adjusting Balance and Tone (and Loudness)



Adjusting Left/Right Balance

Note: The balance of the headphone sound will also be affected. (These settings do not affect the recording output.) The BASS dial and TREBLE dial on the amplifier are used to adjust the level of low and high requencies, respectively. Turn either or both of the dials clockwise to intensify the respective settings, and counterclockwise to lower them.

Adjusting Bass and Trable Levels

The headphone sound will also be affected. (These settings do not affect the recording Leave the dial settings at DEFEAT to leave the bass and/or treble settings unchanged.

useful at low volume levels, boosting lower and higher frequencies as our ears are not so The LOUDNESS button is used to switch the loudness function on or off. This function is sensitive to them when the volume is kept low. Press the button to turn on the loudness function (button down), and press it again to turn it off (button up).

Using Loudness Function at Low Volume Levels

MONITOR jacks in the rear of the amplifier, you can make finer adjustments to various frequency levels. To listen to sound processed by the graphic equalizer, turn the SOURCE SELECTOR dial to the desired source, and press the TAPE 2 MONITOR button on the If you have connected a graphic equalizer (JVC's S.E.A. is recommended) to the TAPE 2

Using Graphic Equalizer

COUDNESS

amplifier or the remote contort unit. The TAPE 2 MONITOR indicator will light up.

# Minimizing Sound Processing (Source Direct)

The SOURCE DIRECT button is used to shorten the circuit route taken by the sound signal during processing, resulting in more realistic sound reproduction. Press this button to enable this function (button down), and once again to disable it (button up).

Using Source Direct Function

TAPE 2 MONITOR 0

Notes: The BALANCE, BASS and TREBLE dials cannot be used when the SOURCE DIRECT function is turned on. The volume and loudness settings may be adjusted, however.

SOURCE DIRECT

0

# Using Compu Link System and Remote Control

## COMPULINK |||||Remote|||| Control System

The AX-R5BK amplifier features the COMPU LINK-3 system, an upgraded version of COMPU LINK-1, which links each JVC component in your system for easier listening and recording. It can be operated either through the remote control unit or the amplifier directly

# Using COMPU LINK 3 System

jacks in the rear panel of the amplifier, the following functions will be available. You may if you have connected IVC components to the amplifier using the COMPULINK-3 SYNCHRO also operate COMPU LINK through the remote control unit; see the next page for details. Note: Some functions described here will not be available with components that feature the

earlier COMPU LINK-1 system.

To listen to a source without the COMPU LINK system, you must turn on both the ampliffer and the component, choose the desired component with the SOURCE SELECTOR dial, load the source material, and press the play button.

Make Simple One-Touch Selection and Replay

components (either switched on or off), as long as the source material is already loaded. This action will automatically turn on both the amplifier and the component (without turning on With COMPU LINK-3, all you need to do is press the play button on any of the linked the other components), turn the SOURCE SELECTOR dial to that component, and start playing the source material.

Note: If the component you have chosen features COMPU LINK-1, you must turn it on first before pressing the play button. If you later turn the SOURCE SELECTOR dial to another source, the previously used component will stop playing after five seconds (it will not, however, turn off). If the newly selected source component is already furned on, it will play immediately. If it is in the standby mode, however, play will begin after the component is turned on

- You cannot use the COMPU LINK system with the second tape deck (TAPE 2) or any equipment connected to the AUXIVIDEO jack of the amplifier.
- Do not try to connect the COMPU LINK cable to DAT (digital audio tape) players, MD (mini-disc) players, or DCC (dgiral compact cassette) players.
  - . Since the outlets on the rear of the amplifier are switched—meaning that they only receive power when the amplifier is turned on—some of the functions in the COMPU LINK system may not work if components are plugged in to those outlets.
- To use COMPU LINK, you must connect each of the components to a wall outlet, and leave each component in a standby state.

### Make Synchronized Recordings

if a disk has been placed in a CD player or on a turntable, the tape deck can made to initiate a synchronized recording, as follows: Place a blank tape in the cassette deck and a disk in either the CD player or turntable.

Press the REC and PAUSE buttons on the cassette deck simultaneously, setting it to the

REC/PAUSE mode

Note: The synchronized recording feature will not work if these buttons are not pressed

simultaneously.

# Press the PLAY button on the CD player or turntable. The cassette deck will start recording when the disk starts playing. When the disk finishes playing, the cassette deck will switch back to the RECPAUSE mode, and will stop four seconds later.

- The SOURCE SELECTOR cannot be switched during synchronized recording, as it will be locked to either CD or PHONE.
- If your CD player is in the programmed mode, a four-second mute will be recorded between tracks to enable the cassette deck's music scan feature to work.
- Synchronized recording will not work properly if the power for any connected equipment is shut off while recording is taking place. Start all over again in such a case.

## Using Remote Control Unit

volume adjustment (including mute), and operation of JVC components (connected with the amplifier using the COMPU LINK system). This section describes how to use the remote Your AX-R5BK amplifier features a remote control unit, allowing for source selection

- Make sure to point the remote control unit at the REMOTE SENSOR window under the POWER switch of the amplifier. The range of the remote control is 7 m (22 ft).
  - VCRs are is excluded from the COMPU LINK system. When you operate a VCR, aim the remote control unit at the VCR directly.

The simple operation keys on the remote control unit of the AX-RSBK can be used to operate

a CD player, a turntable, the first cassette deck (TAPE 1), and a tuner that are

connected to your system.

## Using Simple Operation Keys and Numeric Keys



To start playing the CD player, turntable, or first cassette deck, press the respective 🕨 key on

the remote control unit. Press the \*\* key to stop these components from playing.

The numeric keys can be used to select the track numbers on the CD, the TV channels for the

VCR, and the preset channels for the tuner.





10 KEY/VCR key is used to operate the VCR. Pressing this key sets the numeric keys to the

numeric keys to the tuner mode

Pressing the CD (▶) key sets the numeric keys of the remote control unit to the CD player mode. These keys can then be pressed to specify the desired track number on the CD. The VCR mode. Likewise, the TUNER key is used to operate the tuner. Pressing it sets the Note: As the response of the numeric keys depends on the particular component, refer to that component's manual for further information on the operation

Page 15

\*Measured by JVC Audio Analysis System. Note: Designs and specifications are subject to change without notice.

Weight: 7.2kg (15.9lbs)

# Troubleshooting

Problem	Possible Cause(s)	Action(s)
Amplifier does not play.	Power cord not plugged in.	Plug Power cord in AC outlet.
No sound heard from any speakers.	SPEAKERS button(s) not pressed, or SOURCE SELECTOR dial set incorrectly.	Press SPEAKERS bustonés), or turn SOURCE SELECTOR disa to desired source
Sound heard from only one speaker.	Speaker cables not connected properly, or BALANCE dist turned all the way to right or left	Check speaker cables and reconnect if necessary, or adjust BALANCE dial so both speakers emit sound.
Howling during record playing.	Turntable too close to a speaker.	Move speakers away from the turntable.

The extended operation keys on the remote control unit of the AX-R5BK are used to operate the first cassette deck (TAPE 1) or a VCR. These operations are more extensive than those

allowed by the simple operation keys.

Using Extended Operation Keys

To operate the cassette deck using the extended operation, first press the CONTROL key marked TAPE 1. The operation keys (under the CONTROL keys) are then set to the cassette deck mode, as follows:

Stope operation completely.

Starts recording when PLAY (P-) key pressed simultaneously, and initiates recording standby mode when pressed with the STILL/PAUSE

(11) key. Starts fast wind (right to left). Starts playing. Starts fast wind (left to right).

PLAY (♥): ▼ ♥:

STILL/PAUSE (11): Stope playing/recording temporarily.
STOP (II): Stope operation completely.
Starts recording when PLAY (▶) ka

## Specifications

JVC AX-R5BK Remote Control Integrated Amplifier	60W per channel into 40 at 1 Life with maximum 0,7% upad harmonic distortion. 45W per channel into 80 at 1 Life with maximum 0.7% upad harmonic distortion.	40W per channel, min. RMS, with both channels driven into 8 $\Omega$ from 20Hz to 20kHz with maximum 0.007% total harmonic distortion.	0.003%* at 40W (at ILHE, SG) loaded) 0.007%* at 40W (from 20HE to 20HE, 8D loaded) 0.05%* at 40W (from 20HE to 20HHz, 8D loaded, -304B volume)	70 (nt 1kHz, 8Ω loaded)	5Hz to 50kHz (IHF, both channels driven into 8Q, no more than 0.05% total harmonic distortion)	106dB/73dB 73dB/72dB	200mV/47lcD 2.5mV/47lcD	200mV/1kG	18 dB w 100 Hz 18 dB w 10 kHz	+6dB at 100H2, +4dB at 10kHz	5 Hz to 80 kHz (+0 dB, -3 dB)	90mV (maximum 0.02% total harmonic distortion) ±0.3dB (from 30Hz to 20ldts)	AC 280V, SHEJI 60W AC 240V, SHEJI 55W AC 1101/27/220/20V swicebebe, 50/60Hz/160W	435mm (W) x (27mm (H) x 308.5mm (D) (17.3/16m x 5in x 12.3/16in)
Model Name:	Output Power (IEC 266-3D)N);	(JVC Audio Analysis System)	Total harmonic distortion All sources exc. PHONO Id. SPEAKERS out: PHONO In. SPEAKER out:	Damping Factors	Power bandwidth:	Signal-to-noise ratio ('66 IHF/DIN) All source exc. PHONO: PHONO:	Input Senaitivity/Impedance (1 kHz) All sources exc. PHONO: PHONO:	Outpui LevelImpedance (i kHz) TAPE I, TAPE 2 MONITOR:	Tone control range BASS: TREBLE:	LOUDNESS (-30dB volume):	Prequency Response (8G):	PHONO Overload Capacity (PHONO In, TAPE 2 MONITOR outh MM MM RIAA phono equalization MM MM	Power Requiremental/Consumption Continental Europe: U.K.: Other Area:	Disensions:

STILL/PAUSE (II): Freezes image during play, or stops recording temporarily.

Stops operation completely.

Starts recording when PLAY (>>) key pressed simultaneously, and initiates recording standby mode when pressed with the STILL/

Rewinds the videotape. PAUSE (III) key.

Starts playing.

₽£AY (♥); ₽₩:

If you have connected JVC components to the amplifier using the COMPU LINK remote control system, they can be operated using the remote control unit. Fast winds (fast forward) the videotape.

To operate the VCR using the extended operation keys, first press the CONTROL key marked VCR. The operation keys are then set to the VCR mode, as follows:

#### Description of ICs

- MN17P1602JYJ (IC901) : SYSTEM CONTROLLER
- 1. Terminal Layout

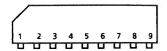
		······		
VDD	1	$\cup$	64	OSC1
PHONO	2		63	OSC2
CD	3		62	GND
TUNER	4		61	
AUX	5		60	GND
TAPE 1	6		59	AC RY
TAPE 2	7		58	
	8		57	
VOL. IND	9		56	
	10		55	-
	11		54	RM. IND
	12		53	VOL. DOEN
	13		52	VOL. UP
	14		51	
	15		50	
	16		49	
	17		48	DCS OUT
-`VSS	18		47	DCS IN
KEY <b>O</b> UT1	19		46	
KEYOUT2	20		45	INH. IN
KEYOUT3	21		44	RM. IN
KEYOUT4	22		43	RST
KEYOUT5	23		42	S OUT
KEYOUT6	24		41	S STB
	25		40	SCK
	26		39	
S.SELECT1	27		38	
S.SERECT2	28		37	
	29		36	GND
	30		35	GND
TAPE2 SW	31		34	POWER SW
MUTE	32		33	
			***************************************	1.

#### 2. Description

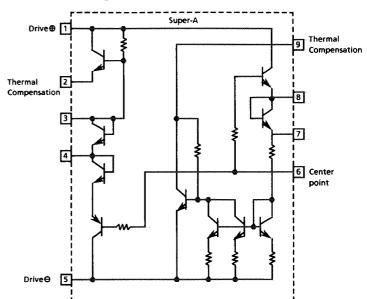
		T				7	
Pin No.	Symbol	1/0	Description	Pin NO.	Symbol	1/0	Description
1	VSS	Ī –	Power supply (+5V)	33		Ī	
2	PHONO	0	Indication control	34	Power sw	Ī	Power ON/OFF control
3	CD	0	Indication control	35		Ī	
4	TUNER	0	Indication control	36		Î	
5	AUX	0	Indication control	37			
6	TAPE1	0	Indication control	38		1	
7	TAPE2	0	Indication control	39		-	
8				40	SCK	0	Date latch clock for IC151
9	VOL.IND	0	Indication control	41	S STB	0	Strobe for IC151
10		on power and on the same of th		42	S OUT	0	Date for IC151
11				43	RST	I	Reset signal input
12	and the second s		омичности на подни с от начине в постояння под станов под станов под станов под под станов под ста	44	RM. IND	0	Indication control
13		-		45	INH. IN	T	Inhibit signal input
14		1		46			
15	<del></del>			47	DCS IN	Ī	Conpulink signal input
16				48	DCS OUT	0	Conpulink signal output
17				49			
18	-VSS		Power supply	50		1	
19	KEYOUT1	0	Key matrix output	51		1	
20	KEYOUT2	0	Key matrix output	52	VOL. UP	0	Volume control signal
21	KEYOUT3	0	Key matrix output	53	VOL. DOWN	0	Volume control signal
22	KEYOUT4	0	Key matrix output	54	RM. IN	Īī	Remote contorol signal input
23	KEYOUT5	0	Key matrix output	55			
24	KEYOUT6	0	Key matrix output	56			
25				57			
26				58			
27	S.SELECT1	I	Key matrix input	59	AC RY	0	Relay control
28	S.SELECT2		Key matrix input	60	GND	-	GND
29				61			
30		]		62	GND	-	GND
31	TAPE2SW	I	TAPE2 MONITOR control	63	OSC2	Ī	Oscillation terminal
32	MUTE	0	Muting control	64	OSC1	-	Oscillation terminal

#### **■ VC5022-2 (IC501,502)**: SUPER A.

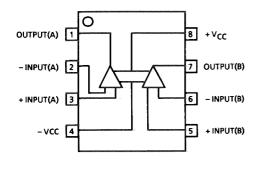
#### (1) Terminal Layout



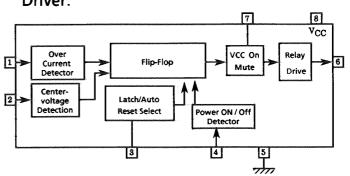
#### (2) Block Diagram



#### VC4580DD (IC101),VC4580D(IC152): Low noise Dual op Amp.

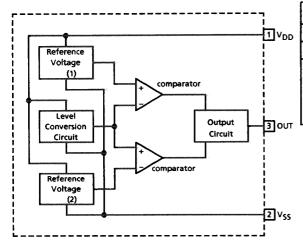


#### $\mu$ PC1237HA (IC 901) : Protector, Relay Driver.



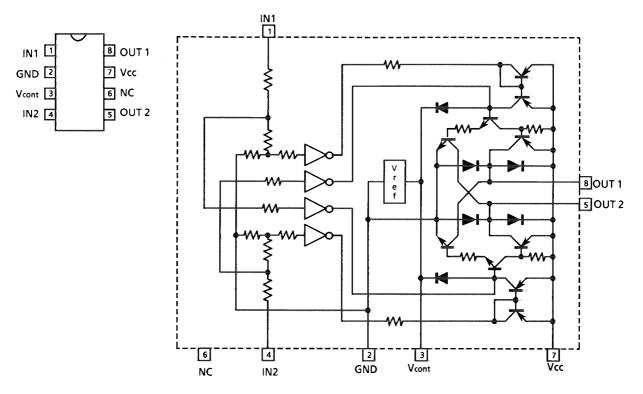
#### ■ PST7046: IC702 RESET IC

#### **Block Diagram**



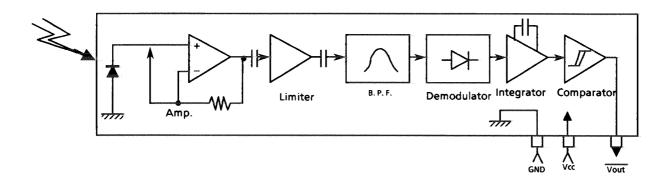
Pin No.	Pin Name	Functions
1	$V_{DD}$	Power supply
2	V <sub>SS</sub>	Ground
3	OUT	Reset signal output : Low level is output when resetting : High level is output when cancelling the

#### LB1639-CV (IC581): Motor Driver



IN 1	IN 2	OUT 1	OUT 2	MOTOR
Н	L	L H L		CLOCKWISE
L	Н	L	Н	COUNTER-CLOCKWISE
Н	Н	OFF	OFF	WAITING
L	L	OFF	OFF	WAITING

#### ■GP1U501X(IC203): Receiver for remote controller



#### **Disassembly Procedures**

#### 1. Removing the Top Cover

- 1) Remove the 4 screws fastening both sides of the Top Cover, and the 2 screws fastening the rear sides.
- 2) Remove the Top Cover.

#### 2. Removing the Front Panel

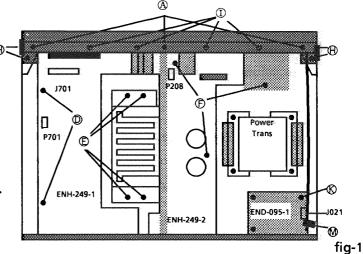
- 1) Remove the 3 screws (A) fastening top of the Front Panel.
- 2) Remove the 4 screws ① fastening bottom of the Front Panel.
- 3) Remove the Metal Front Panel.
- 4) Cut the tie band M.
- 5) Disconnect the connectors J021,J701 and P208.
- 6) Remove the 5 knob (MASTER VOLUME, SOURCE SELECTOR etc.).
- 7) Remove the 5 nut ® and 3 screws ©.
- 8) Remove the hooks (1) holding the bracket.
- 9) Remove the Front Panel.
- 10) Remove the screw © fastening the Powre SW. PCB. And remove the nut ① fastening the source selector PCB.

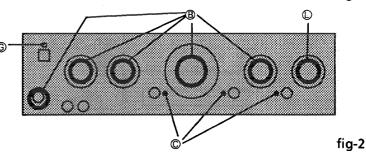
#### 3. Service procedures of Main PCB

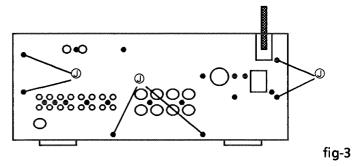
- 1) Remove the 9 screws  $\mathbb{O}$ ,  $\mathbb{E}$  and  $\mathbb{E}$  on the Main PCB. And Remove the screw  $\mathbb{C}$ .
- 2) Remove the 4 screws fastening the Trans.
- 3) Remove the 6 screws ①.
- 4) Separate the Main PCB with the front panel, rear panel and trans from the chassis base as shown in fig-4.

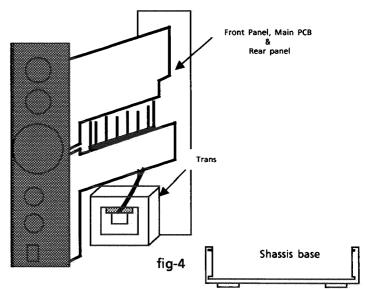
#### (NOTE)

Take care not to short-circuit the filter condenser C811 and C812.





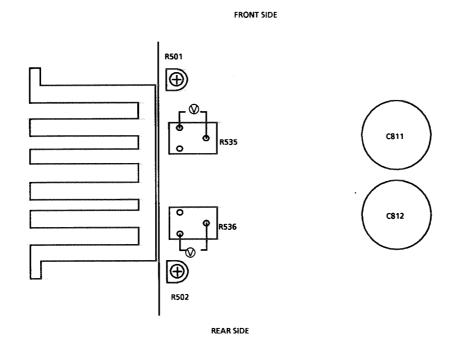




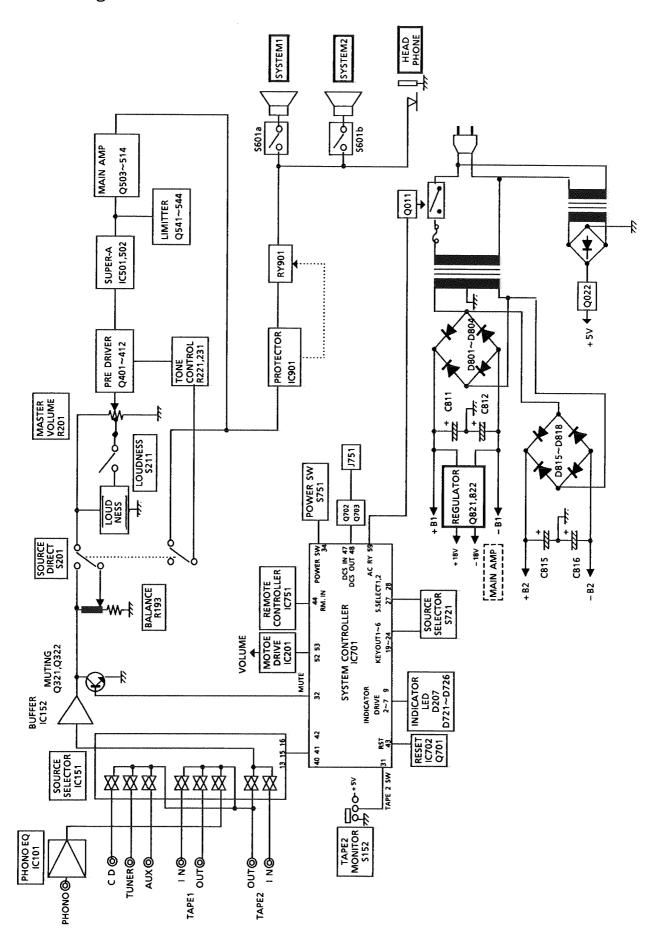
#### **Power Amplifier Adjustment Procedures**

#### ■ Idling Current

- 1) Set the volume control to minimum during this adjustment.
- 2) Turn R501 and R502 fully counterclockwise before the power switch on.
- 3) Always start from cold, and allow 15 minutes to warm up before adjustment. If the heatsink is already warm from previous use the correct adjustment can not be made.
- 4) Connect a DC voltmeter to R535 resistor's leads for left channel, or to R536 for right channel.
- 5) Adjust R501 for left channel, or R502 for right channel, so that the DC voltmeter becomes  $7mV{\sim}13mV$  .

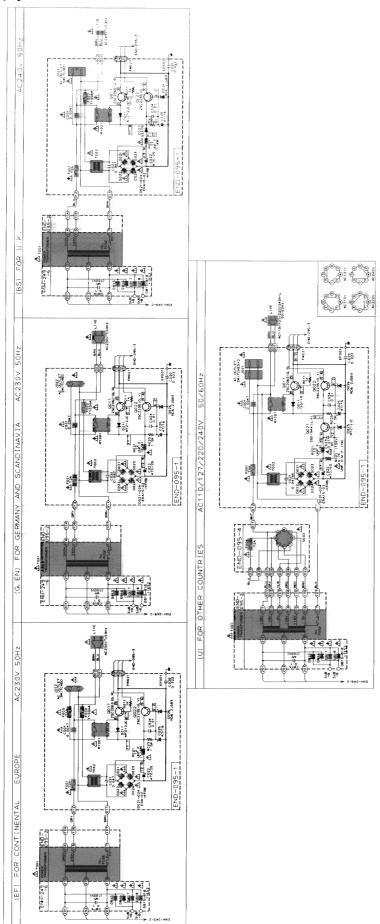


#### Block Diagrams

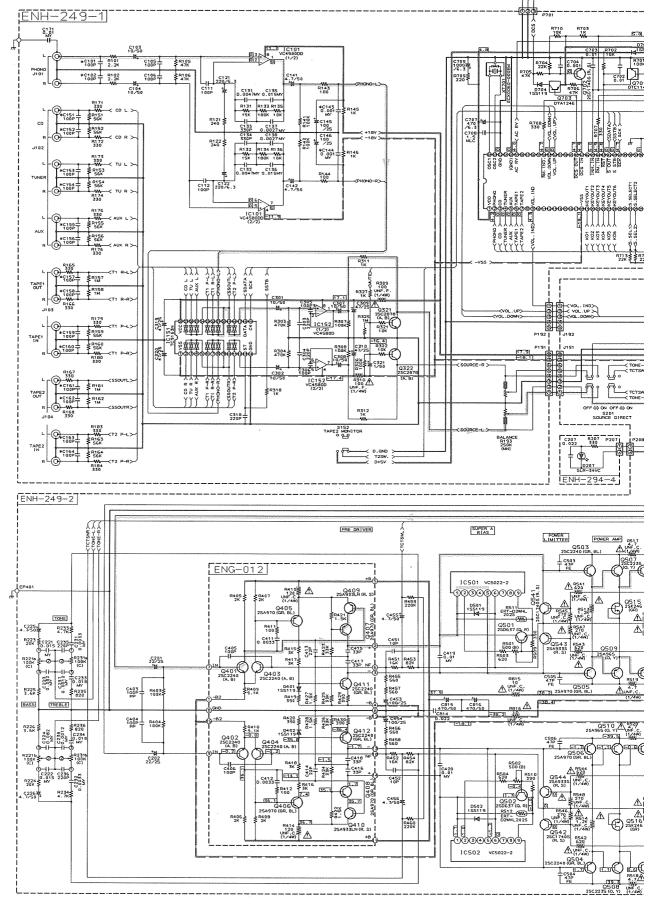


#### Schematic Diagams

#### (1) Power Suppiy Section

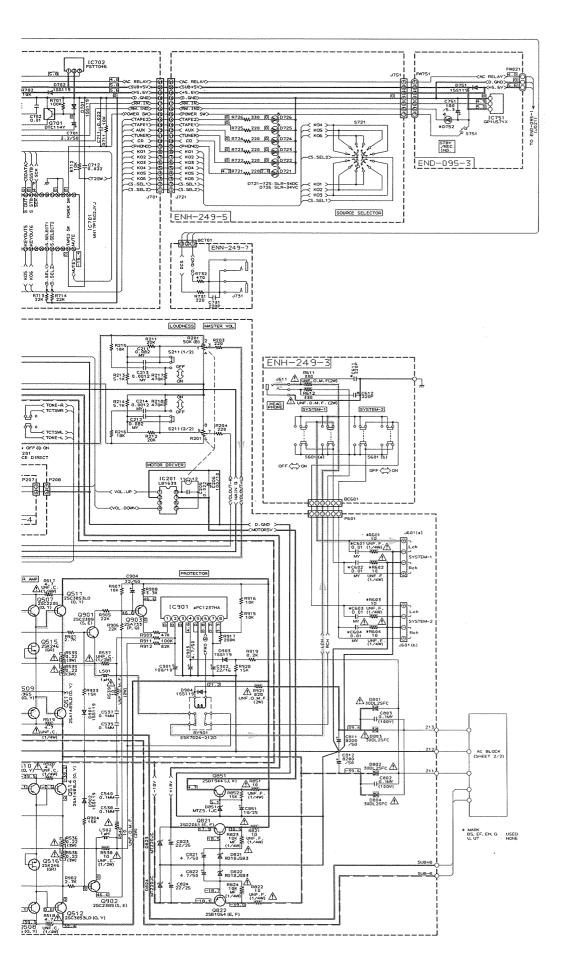


#### (2) Amplifier Section



#### Notes:

- 1. indicates +
- 2. ---- indicates -
- 3. indicates ma

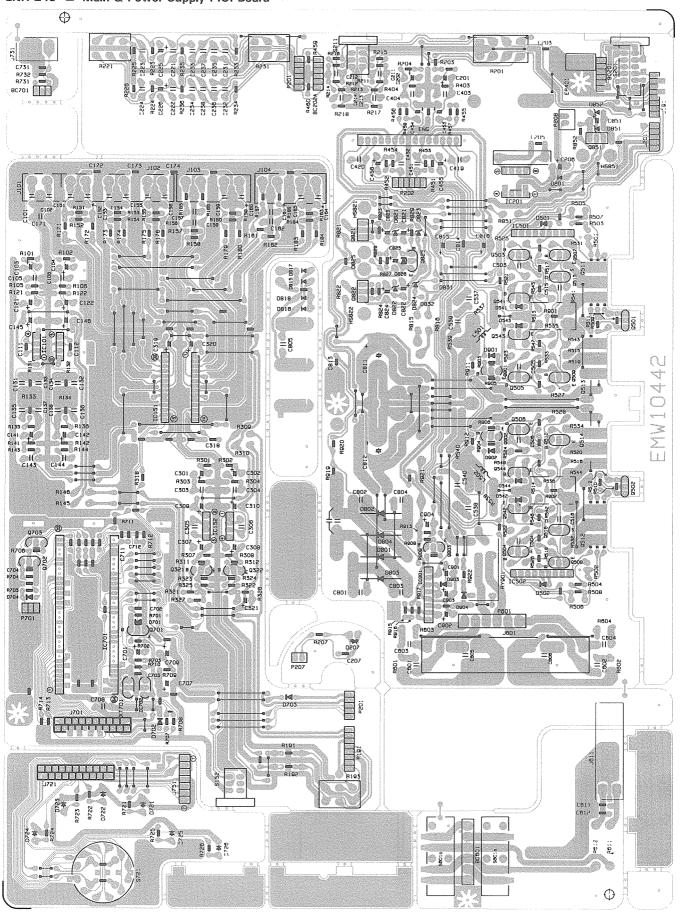


ates +B power supply ates -B power supply. ates main path.

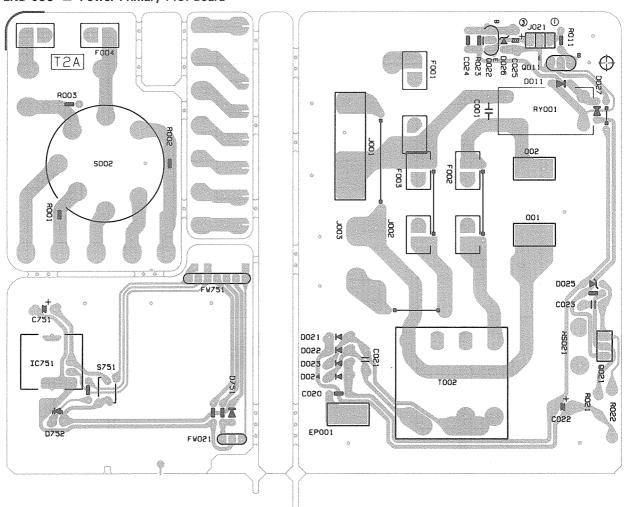
- 4. When replacing the parts in the shaded are ( ) and those marked with  $\Delta$  , be sure to use the designated parts to ensure safety.
- 5. The design and contents are subject to change without notice.

#### Printed Circuit Boards

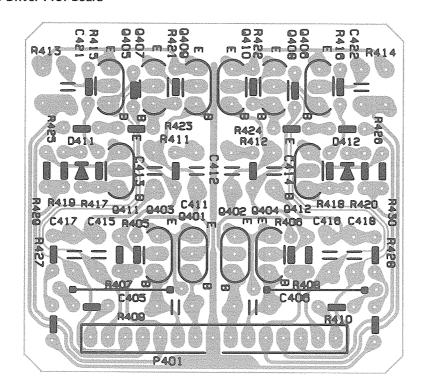
ENH-249 Main & Power Supply P.C. Board



END-095 Power Primary P.C. Board



ENG-012 Pre. Driver P.C. Board



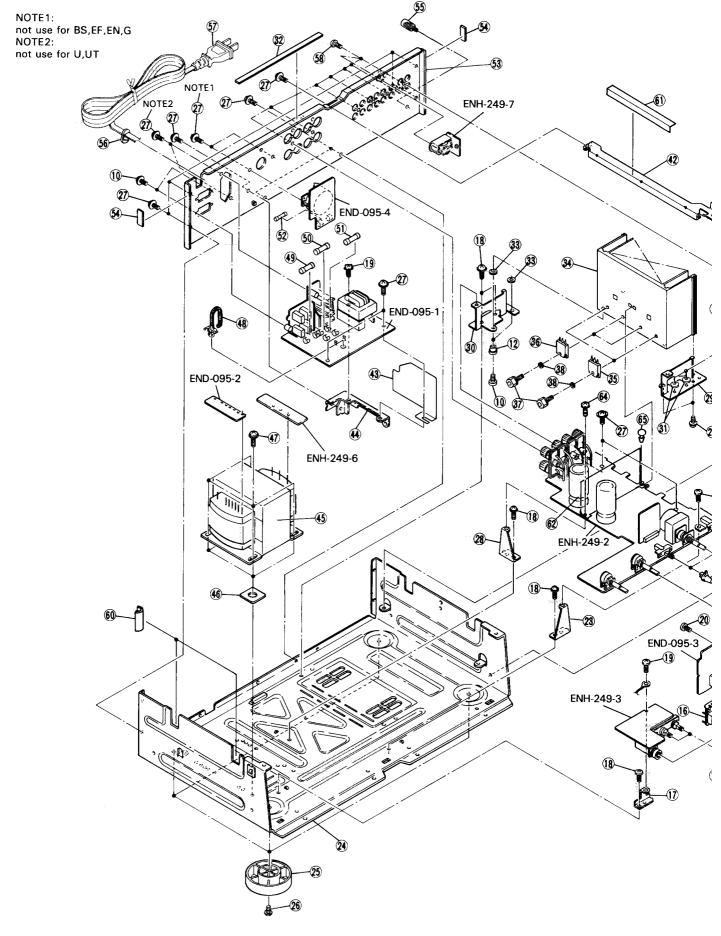
#### **PARTS LIST**

Note: All printed circuit borads and its assemblies are not available as service parts.

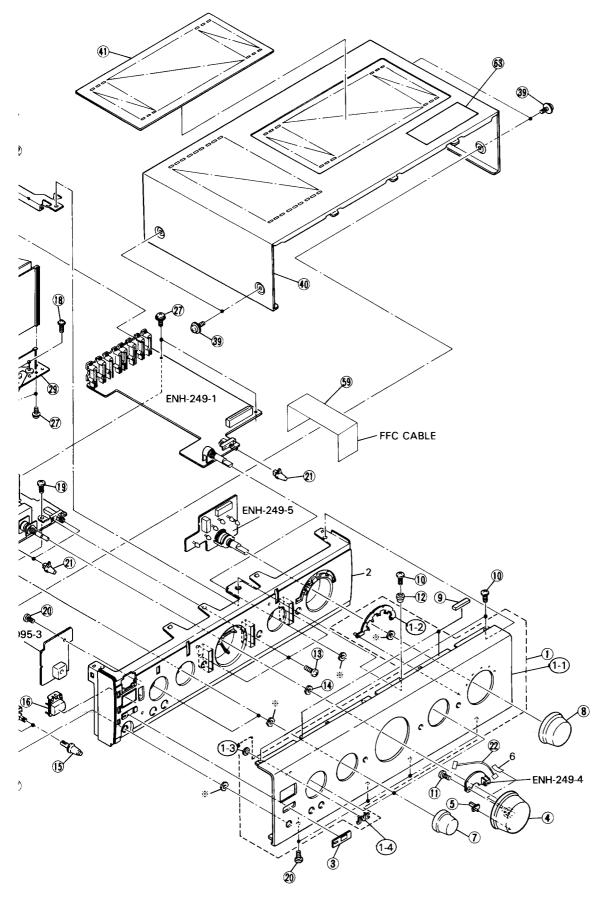
#### **Contents**

General Exploded View and Parts List	2 - 3
Printed Circuit Board Ass'y and Parts List	
■ ENH-249 Main & Power Suppliy PC Board Ass'y	2 - 8
■ ENG-012 A Pre. Driver PC Board Ass'y	
■ END-095 Power Primary PC Board Ass'y	
Accessories List	
Packing Materials and Part Numbers	2 - 17

#### **General Exploded View and Parts List**



Symbol No. M 1 M M



\* Accessories

	Parts	List			Symbol No	o. M 1 M M
$\Lambda$	Item	Part Number	Part Name	Q'ty	Description	Area
<b>***********</b>	1	EFP-AXR5BKE(S)	FRONT PANEL ASSY	1		
	1-1	E208190-008	FRONT PANEL	1		
	1-2	E308993-001	INDICATOR	1		
	1-3	E60912-003	SPEED NUT	1		
	1-4	E72968-001	JVC MARK	1		
	2	E102876-004	FRONT BASE	1		
	3	E406592-001	REMOCON SCREEN	1		
	4	E308989-003	VOL.KNOB	1		
	5	E408144-002	INDICATOR	1		
	6	E408294-001	SPACER	1		
	7	E308097-005	TONE KNOB	3		
	8	E308096-010	SEL.KNOB	1		
	9	E306805-092	SPACER	2		
	10	SDSG3008CC	TAPPING SCREW	5		
	***************************************	SDSG3008CC	TAPPING SCREW	2		UT
	44	SDSG3008CC	TAPPING SCREW	2		U
	11	SDSF2608Z	SCREW	1		
	12	BUSH-PUL	BUSHING	3		
	13	SBST3008CC	TAPPING SCREW	3		
	14 15	E71862-001 E407110-002	PUSH BUTTON	1		·
	16	E407173-002	POWER BUTTON	2		
	17	E408143-002	C.B BRACKET			
	18	GBST3006CC	TAPPING SCREW			
	19	E74266-002	SPECIAL SCREW	7		
	20	SDSF3008M	TAPPING SCREW	5		
	21	E407321-002SM	PUSH BUTTON	3		
	22	EWS142-042	SOCKET WIRE	1		
	23	E408149-001	C.B BRACKET			
	24	E102877-004ST	CHASSIS BASE			
	25	E307427-007	FOOT ASSY	4		UT
		E307427-007	FOOT ASSY	4		U
		E307427-008	FOOTASSY	4		EF
		E307427-008	FOOTASSY	Ι Δ		EN
1		E307427-008	FOOTASSY	4		G
		E307427-008	FOOTASSY	4		BS
	26	GBST3008CC	TAPPING SCREW	4		
	27	GBSG3006CC	SCREW	20		
	28	E408149-002	C.B BRACKET	1 1		
	29	E308991-002	HEAT SINK BRACKET	1		
	30	E308991-001	HEAT SINK BRACKET	1		
	31	WBS3000CC	WASHER	2		
	32	EXO080005N20S	SPACER	1		
	33	E73967-001	SPACER	2		
	34	E308990-001ST	HEAT SINK	1		
	35	2SC3853LD(O,Y)	SI.TRANSISTOR	2	Q511,Q512	
	36	2SA1489LD(O,Y)	SI.TRANSISTOR	2	Q513,Q514	
	37	E73525-003	SCREW	4		
	38	WNS3000CC	WASHER	4		
	39	E61660-004	SPECIAL SCREW	4		
	40	E26753-003	METAL COVER	1		
	41	E306233-002	PROTECT SHEET	1		EN
		E306233-002	PROTECT SHEET	1		EF
		E306233-002	PROTECT SHEET	1		BS
		E306233-002	PROTECT SHEET	1 1		UT

$\Lambda$	Item	Part Number	Part Name	Q'ty	Description	Area
	41	E306233-002	PROTECT SHEET	1		U
	42	E308992-001	STAY BRACKET	1		
	43	E309139-001	PROTECT COVER	1		U
		E309139-001	PROTECT COVER	1		UT
	44	E406074-001	C.B BRACKET	1		
$\Lambda$	45	ETP1100-52EA	POWER TRANSFORMER	1		G
$\Lambda$		ETP1100-52FA	POWER TRANSFORMER	1		UT
$ \Lambda $		ETP1100-52FA	POWER TRANSFORMER	1		U
$ \Lambda $		ETP1100-52EA	POWER TRANSFORMER	1		EF
$ \Lambda $		ETP1100-52EA	POWER TRANSFORMER	1		EN
$\Lambda$	***************************************	ETP1100-52EABS	POWER TRANSFORMER	1		BS
	46	E407337-001	SPACER	4		
	47	E61661-003	SPECIAL SCREW	4		
	48	E307572-001	FASTENER	1		
$\Lambda$	49	QMF51E2-2R0	FUSE	1		EN
$\Lambda$	***************************************	QMF51E2-2R0	FUSE	1	and the second s	G
$\Lambda$		QMF51E2-4R0	FUSE	1		U
$\Lambda$		QMF51E2-2R0BS	FUSE	1		BS
$\Lambda$		QMF51E2-2R0	FUSE	1		EF
$\Lambda$		QMF51E2-4R0	FUSE	1		UT
$\Lambda$	50	QMF51E2-1R0	FUSE	1		EF
$ \Lambda $	51	QMF51E2-R10	FUSE	1		G
$\Lambda$		QMF51E2-R10BS	FUSE	1		BS
$ \Lambda $		QMF51E2-R10	FUSE	1		EF
$\Lambda$		QMF51E2-R10	FUSE	1		EN
$\Delta$	52	QMF51E2-2R0	FUSE	1		UT
$\triangle$		QMF51E2-2R0	FUSE	1		U
	53	E208192-004	REAR PANEL	1		G
		E208192-004	REAR PANEL	1		EF
		E208192-006	REAR PANEL	1		UT
		E208192-005	REAR PANEL	1		BS
		E208192-004	REAR PANEL	1		EN
		E208192-006	REAR PANEL	1		U
	54	EXO020010R10S10	SPACER	2		
	55	E408091-001	GROUND TERMINAL	1		
$\Lambda$	56	QH\$3771-108	CORD STOPPER	1		EN
$ \Lambda $		QHS3771-108	CORD STOPPER	1		UT
$\Lambda$		QH\$3771-108B\$	CORD STOPPER	1		BS
$ \Lambda $		QHS3771-108	CORD STOPPER	1		υ
$\Lambda$		QHS3771-108	CORD STOPPER	1		G
$\Lambda$		QHS3771-108	CORD STOPPER	1		EF
$\Lambda$	57	QMP3900-200	POWER CORD	1		EN
$\Lambda$		QMP5530-0085BS	POWER CORD	1		BS
$ \Lambda $		QMP3900-200	POWER CORD	1		EF
$ \Lambda $		QMP7520-200	POWER CORD	1		UT
$\Lambda$		QMP7520-200	POWER CORD	1		U
$\Lambda$		•				
4		QMP3900-200	POWER CORD	1		G
	58	E73273-003	SPECIAL SCREW	8		
	59	VWF1221-12TTB	FFC CABLE	1		
	60	E306805-104	SPACER	2		

$\triangle$	ltem	Part Number	Part Name	Q'ty	Description	Area
	61	E306805-139	SPACER	1		
	62	E408446-001	SHIELD PLATE	1		
	63	E67000-005	CAUTION LABEL	1		
	64	SBSG3008CC	TAPPING SCREW	1		
	65	E48729-009	PLASTIC RIVET	1		
	-	E408450-094	CE LABEL	1		B\$
	-	E408450-094	CE LABEL	1		EF
	-	E408450-094	CE LABEL	1		EN
	-	E408450-094	CE LABEL	1		G
	-	QZL1031-101	LABEL	1		EF
	-	E70027-001	LABEL	1		EN
	-	E407619-032	FTZ LABEL	1		G
	-	E308522-044	AX-R5BK R.LAB	1		UT
	-	E61029-005	NUMBER LABEL	1		

**≜SAFETY PARTS** 

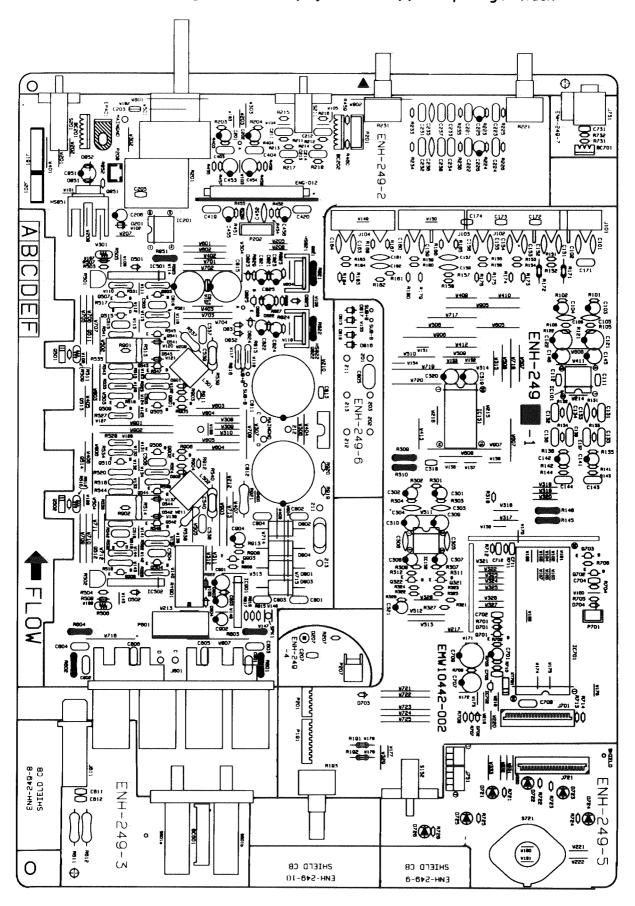
#### The Marks for Designated Areas

G .... Germany U .... Universal Type BS ..... the U.K. UT .... Taiwan

EF .... Continental Europe EN .... Scandinavia No mark indicates all area.

#### Printed Circuit Board Ass'y and Parts List

Note: ENH-249 varies according to the areas employed. See note (1) when placing an order.



#### Note (1)

PC Board	Ass'y	Version	Designated Areas
ENH-249	A	G	Germany
ENH-249	B	EN EF	Scandinavia Continental Europe
ENH-249	C	BS	the U.K.
ENH-249	D	U UT	Universal Type Taiwan

#### TRANSISTORS

			1		
Δ	ITEM	PART NUMBER	DESCR	IPTION	AREA
	Q321	2SC2878(B)	SI.TRANSIST		
l	Q322	2SC2878(B)	SI.TRANSIST		
1	Q501	2SD637(Q,R)	SI.TRANSIST	MATSUSHITA	
1	Q502	2SD637(Q,R)	SI.TRANSIST	MATSUSHITA	
	Q503	2SC2240(GR,BL)	SI.TRANSIST	TOSHIBA	
	Q504	2SC2240(GR,BL)	SI.TRANSIST	TOSHIBA	
	Q505	2SA970(GR)	SI.TRANSIST	TOSHIBA	
1	Q506	2SA970(GR)	SI.TRANSIST	TOSHIBA	
	Q507	2SC2235(0,Y)	SI.TRANSIST	TOSHIBA	
	Q508	2SC2235(0,Y)	SI.TRANSIST	TOSHIBA	
	Q509	2SA965(Y)	SI.TRANSIST	TOSHIBA	
	Q510	2SA965(Y)	SI.TRANSIST	TOSHIBA	
	Q515	2SK246(GR,BL)	F.E.T.	TOSHIBA	
1	Q516	2SK246(GR,BL)	F.E.T.	TOSHIBA	
		2SC1740S(R,S)	SI.TRANSIST		
		2SC1740S(R,S)	SI.TRANSIST	ROHM	
		2SA933S(RS)	SI.TRANSIST		
1 1	Q544	25A933S(RS)	SI.TRANSIST		
i	Q701	DTC114YS	DIGITAL TRA		
	Q702	2SC1740S(R,S)	SI.TRANSIST		
il	Q703	DTA124ES	DIGITAL TRA		
		2SD2061(F,G)	SI.TRANSIST		
li		2SB1064(E,F)	SI.TRANSIST		
		2SD1944(J,K)	SI.TRANSIST		
	Q901	2SC2389(S,E)	SI.TRANSIST		
	902	2\$C2389(S/E)	SI.TRANSIST	ROHM	
ı	Q903	2SA733A(P,K)	SI.TRANSIST		
	.				
		**************************************			

#### A : ISIA:FIEITIY: IPIAIRITIS

#### I. C. S.

Δ	ITEM	PART NUMBE	R DESCRIPTION	AREA
	IC101 IC151 IC152 IC201 IC501 IC502 IC701 IC702 IC702	VC4580DD TC°163N VC4580D LB1639-CV VC5022-2 VC5022-2 VC7022-2 PST7046 UPC1237HA	I.C(MONO-AN I.C(DIGI-MO TOSHIBA I.C(MONO-AN I.C(DIGI-OT SANYO I.C(MONO-AN SANYO I.C(MONO-AN SANYO I.C(MICRO-C MATSUSHITA I.C(MONO-AN MITSUMI I.C(MONO-AN MITSUMI I.C(MONO-AN MESUMI)	

△ SIAFEITY PARTS

#### DIODES

Δ	ITEM	PART NUMBER	DESCR	IPTION	AREA
	D701 D702	SLR-342VC3F 1SS119 1SS119 1SS119 1SS119	L.E.D. SI.DIODE SI.DIODE SI.DIODE SI.DIODE	ROHM	
	D722 D723 D724	1SS119 SLR-34DC50F165 SLR-34DC50F165 SLR-34DC50F165 SLR-34DC50F165	L.E.D. L.E.D.	ROHM ROHM ROHM ROHM	
Δ Δ	D725 D726 D801 D802 D803	SLR-34DC50F165 SLR-34VC50F165 30DL2FC 30DL2FC 30DL2FC		ROHM ROHM NIHONINTER NIHONINTER NIHONINTER	
<b>A A A A</b>	D804 D815 D816 D817 D818	30DL2FC 11ES2 11ES2 11ES2 11ES2	SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE	NIHONINTER NIHONINTER NIHONINTER NIHONINTER NIHONINTER	
	D821 D822 D823 D824 D831	RD18JSB3 RD18JSB3 MTZ2OJC MTZ2OJC 1SS119	ZENER DIODE ZENER DIODE ZENER DIODE ZENER DIODE SI.DIODE	NEC ROHM	

#### DIODES

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	D832 D851 D901 D902 D903 D904	1SS119 1SS119 1SS119	SI.DIODE ZENER DIODE ROHM SI.DIODE SI.DIODE SI.DIODE SI.DIODE SI.DIODE	

A : SIA FETTY PARTIS

#### CAPACITORS

	1			T				
⚠	ITEM	PART	NUMBER	DE	SCRI	РТІ	ON	AREA
1	C101		HJ-101Z	100PF	50V	CER.CA		BS
l	C101		HJ-101Z	100PF	50V	CER.CA		£ F
l	C101		HJ-101Z HJ-101Z	100PF	50 V 50 V	CER.CA		E N G
	C102		HJ-101Z	100PF	50V	CER.CA		BS
	C102		HJ-101Z	100PF	50V	CER.CA		E F
	C102		J-101Z	100PF	50V	CER.CA		EN
	C102	QCS31	1J-101Z	100PF	50V	CER.CA	PACI	G
	C103		HM-106E	10MF	50V	E.CAPA	CITO	
	C104		HM-106E	10MF	50V	E.CAPA		
ŀ	C105		-101Z	100PF	50V	CER.CA		
	C106		HJ-101Z HK-101Y	100PF	50V 50V	CER.CA		
	C112		1K-101Y	100PF 100PF	50V	CER.CA		
	C121		M-227E	220MF	6.30	E.CAPA		
	C122		JM-227E	220MF	6.30	E.CAPA		
	C131	QFN81		4700P		MYLAR		
	C132	QFN81		4700P	50V	MYLAR	CAPA	
	C133		IJ-331Z	330PF	50 <b>V</b>	CER.CA		
	C134		IJ-331Z	330PF	50V	CER.CA		
	C135	QFN81		0.015		MYLAR		
	C136	QFN81		0.015F		MYLAR METAL.		
	C138	QFN81		2700P		METAL.		
	C141		M-475E	4.7MF	50V	E.CAPA		
	C142		M-475E	4.7MF	50V	E.CAPA		
	C143	QFN81		1000P		METAL.		BS
	C143	QFN81H		1000PI	50V	METAL.	MYLA	EF
	C143	QFN81H		1000P		METAL.		EN
	C143	QFN81H		1000PI		METAL.		G
Ιí	C144 C144	QFN81F QFN81F		1000P		METAL.		BS
	C144	QFN81H		1000PI		METAL.		E F E N
	C144	QFN81H		1000P		METAL.		G
	C145		M-226E	22MF	25V	E.CAPA		
	C146		M-226E	22MF	250	E.CAPA		
ľ	C151			100PF	50V	CER.CA	PACI	BS
	C151		J-101Z	100PF	50V	CER.CA		ΕF
	C151		J-101Z	100PF	50V	CER.CA		EN
	C151		IJ-101Z	100PF	50V	CER.CA		
	C152 C152		IJ-101Z IJ-101Z	100PF 100PF	50V 50V	CER.CA		BS EF
	C152			100PF	50V	CER.CA		EN
	C152		J-101Z	100PF	50V	CER.CA		G
<b>.</b>	C153		J-101Z	100PF	50V	CER.CA		BS
	C153		J-101Z	100PF	50V	CER.CA		EF
	C153		J-101Z	100PF	50V	CER.CA		EN
	C153		J-101Z	100PF	50V	CER.CA		G
	C154			100PF	50V	CER.CA		BS
	C154		IJ-101Z IJ-101Z	100PF 100PF	50V 50V	CER.CA		E F E N
	C154			100PF	50V	CER.CA		G
	C155		J-101Z	100PF	50V	CER.CA		BS
1	C155		J-101Z	100PF	50V	CER.CA		EF
	C155	QCS31H	J-101Z	100PF	50V	CER.CA		EN
1	C155		J-101Z	100PF	50V	CER.CA		G
	C156			100PF	50V	CER.CA		BS
- 1	C156		J-101Z J-101Z	100PF	50V 50V	CER.CA		EF
	C156			100PF 100PF	50V	CER.CA		EN
	C157	QCS31H		100PF	50V	CER.CA		G BS
	C157		J-101Z	100PF	50V	CER.CA		E F
	C157			100PF	50V	CER.CA		EN
	C157	QCS31H	J-101Z	100PF	50V	CER.CA	PACI	G
	C158			100PF	50V	CER.CA		BS
	C158			100PF	50V	CER.CA		EF
	C158			100PF	50V	CER.CA		EN
	C159			100PF 100PF	50V 50V	CER.CA		G BS
	C159			100PF	50V	CER.CA		EF
	C159			100PF	50 <b>V</b>	CER.CA		EN
	C159	QCS31H	J-1012	100PF	50V	CER.CA		G
	C160		J-101Z	100PF	50V	CER.CA	PACI	BS
	C160			100PF	50 <b>V</b>	CER.CA		EF
	C160	QCS31H	J-101Z	100PF	50V	CER.CA		EN
					<b>∆</b> : 'S	AFETY	PAR	TIS

#### CAPACITORS

Δ	ITEM	PART NUMBER	DES	CRI	PTION	AREA
	C160	QCS31HJ-101Z	100PF	50V	CER CARACT	
	C161		100PF	50 <b>V</b>	CER.CAPACI CER.CAPACI	G BS
ļ	C161		100PF	50V	CER.CAPACI	EF
	C161		100PF	50V	CER.CAPACI	EN
	0.161	QCS31HJ-101Z	100PF	50V	CER.CAPACI	G
	C162	QCS31HJ-101Z	100PF	50V	CER.CAPACI	BS
- 1	C162		100PF	50V	CER.CAPACI	EF
i	C162		100PF	50V	CER.CAPACI	EN
	C162		100PF	50V	CER.CAPACI	G
	C163	QCS31HJ-101Z	100PF	50V	CER.CAPACI	BS
	C163		100PF 100PF	50V 50V	CER.CAPACI CER.CAPACI	E F E N
ļ	C163	QCS31HJ-101Z	100PF	50V	CER.CAPACI	G
- 1	C164		100PF	50V	CER.CAPACI	BS
	C164	QCS31HJ-101Z	100PF	50V	CER.CAPACI	EF
	C164	QCS31HJ-101Z	100PF	50V	CER.CAPACI	EN
	C164	QCS31HJ-101Z	100PF	50V	CER.CAPACI	G
- 1	74	051104111 40771		504	METAL MULA	
	C171 C201		0.01MF 22MF	50V 25V	METAL.MYLA E.CAPACITO	1
	C202		22MF	25V	E.CAPACITO	
	C205		0.022MF	25V	CER.CAPACI	
- 1	C206	EETB1AM-107E	100MF	10V	E.CAPACITO	
	C207	QCHB1EZ-223	0.022MF	25 V	CER.CAPACI	
	C211	QFLC1HJ-823ZM	0.082MF	50 <b>V</b>	AL E.CAPAC	
		0 EL C111   00771	0 000=-	504	AL E CARAC	
	C212	QFLC1HJ-823ZM	0.082MF	50V	AL E.CAPAC	
	C213	QFN31HJ-122Z	1200PF	50V	MYLAR CAPA	
	C214	QFN31HJ-122Z	1200PF	50V	MYLAR CAPA	
		****************************				
	C221		0.015MF		METAL MYLA	
	C 5 5 5	QFLC1HJ-153ZM	0.015MF	50V	METAL.MYLA	
	6222	AEL CAUL 8277"	0 00045	FOY	A1 E CADAC	
	C223		0.082MF	50V	AL E.CAPAC	
	C224 C225		0.082MF 4.7MF	50V	AL E.CAPAC E.CAPACITO	
	C226		4.7MF	50V	E.CAPACITO	
ļ	C231		3300PF	50V	METAL MYLA	
	C232	QFN81HJ-332	3300PF	50V	METAL.MYLA	
	C233	QFLC1HJ-183ZM	0.018MF	50V	METAL, MYLA	
	C234		0.018MF	50V	METAL MYLA	
	C235		220PF	50V	CER.CAPACI	
	C236		220PF 1200PF	50V 50V	CER.CAPACI MYLAR CAPA	!
	C238		1200PF	50V	MYLAR CAPA	
	C301		10MF	50V	E.CAPACITO	
	C302		10MF	50V	E.CAPACITO	
-	C303	QCS31HJ-221Z	220PF	50V	CER.CAPACI	
	C304		220PF	50V	CER.CAPACI	
	C305		100PF	50V	CER.CAPACI	
1	C306		100PF 10MF	50V 50V	CER.CAPACI E.CAPACITO	
	C308		10MF	50V	E.CAPACITO	
	C309	FETRIEM-47AF	47MF	25V	E.CAPACITO	
-1	C310	EETB1EM-476E	47MF	25V	E.CAPACITO	
	C318	QCBB1HK-221Y	220PF	50V	CER.CAPACI	
	C319		47MF	25V	E.CAPACITO	
ŀ	C320		47MF	25V	E.CAPACITO	
	C321		1MF 100PF	50V	E.CAPACITO	
	C403		100PF 100PF	50V 50V	POLYPROPY.	
	C419		0.01MF	50V	METAL MYLA	
1	C420		0.01MF	50V	METAL MYLA	
-	C451		10PF	50V	CER.CAPACI	
	C452		10PF	50V	CER.CAPACI	
	C453		100MF	25V 25V	E.CAPACITO E.CAPACITO	
	C454		100MF 4.7MF	50V	E.CAPACITO	
	C456		4.7MF	50V	E.CAPACITO	
-	C503		47PF		FILM MICA	
j	C504	EFF001J-470	47PF		FILM MICA	
1	C505		47PF		FILM MICA	
	C506		47PF	501/	FILM MICA	
ĺ	C537 C538		0.1MF 0.1MF	50V 50V	METAL.MYLA	
į	C539		0.1MF	50V	METAL MYLA	
	C540		0.1MF	50V	METAL MYLA	
	C601	QFLC1HJ-103ZM	0.01MF	50V	METAL.MYLA	BS
	C601		0.01MF	50V	METAL.MYLA	EF
- 1	C601		0.01MF	50V	METAL MYLA	EN
	C601		0.01MF 0.01MF	50V 50V	METAL.MYLA	G BS
	C602		0.01MF	50V	METAL MYLA	E F
	C602		0.01MF	50V	METAL . MYLA	EN
	C602		0.01MF	50V	METAL MYLA	G
	C603	QFLC1HJ-103ZM	0.01MF	50V	METAL.MYLA	BS
	C603		0.01MF	50V	METAL.MYLA	EF
	C603		0.01MF	50V	METAL.MYLA	EN
- [	C603		0.01MF	50V	METAL MYLA	G
	C604 C604		0.01MF 0.01MF	50V 50V	METAL.MYLA	BS EF
			0.01MF	50V	METAL.MYLA	EN
İ	C604					

CAPACITORS

	C611 C611 C611 C612 C612 C612 C612 C701 C702 C703 C704 C707 C708 C709 C711	QCBB1H QCBB1H QCBB1H QCBB1H QCBB1H QCBB1H QCBB1H QCVB1( QCVB1( QCVB1( QCCB1H EETB0 QCZO2( EETB0		220PF 220PF 220PF 220PF 220PF 220PF 220PF 2.20PF 2.2MF 0.01MF 1000PF 4.70MF	50V 50V 50V 50V 50V 50V 50V 50V 16V 16V 6.3V	CER.CAPACI CE.CAPACITO	EF
	C611 C612 C612 C612 C612 C612 C701 C702 C703 C704 C707 C708 C709	QCBB1H QCBB1H QCBB1H QCBB1H QCBB1H QCBB1H QCVB1C QCVB1C QCGB1H EETBOL QCZO2C EETBOL	HK-221Y HK-221Y HK-221Y HK-221Y HK-221Y HK-221Y HM-225E CM-103Y CM-103Y CM-103Y UM-477E	220PF 220PF 220PF 220PF 220PF 220PF 2.2MF 0.01MF 0.01MF 1000PF 470MF	50V 50V 50V 50V 50V 50V 50V 16V 16V	CER.CAPACI CER.CAPACI CER.CAPACI CER.CAPACI CER.CAPACI CER.CAPACITO CER.CAPACITO CER.CAPACI CER.CAPACI CER.CAPACI CER.CAPACI	EN G BS EF EN
	C611 C612 C612 C612 C612 C701 C702 C703 C704 C707 C708 C709	QCBB1+ QCBB1+ QCBB1+ QCBB1+ QCBB1+ QCVB10 QCVB10 QCVB10 QCVB20 QCZ020 EETB0.	HK-221Y HK-221Y HK-221Y HK-221Y HK-221Y HM-225E CM-103Y HK-102 JM-477E D5-155	220PF 220PF 220PF 220PF 220PF 2.2MF 0.01MF 0.01MF 1000PF 470MF	50V 50V 50V 50V 50V 50V 16V 16V	CER.CAPACI CER.CAPACI CER.CAPACI CER.CAPACI CER.CAPACI CER.CAPACITO CER.CAPACI CER.CAPACI CER.CAPACI	G BS EF EN
	C612 C612 C612 C612 C701 C702 C703 C704 C707 C708 C709	QCBB1H QCBB1H QCBB1H QCBB1H QCVB1C QCVB1C QCGB1H EETBO QCZO2C EETBO	HK-221Y HK-221Y HK-221Y HK-221Y HM-225E CM-103Y HK-103Y HK-102 JM-477E D5-155	220PF 220PF 220PF 220PF 2.2MF 0.01MF 1000PF 470MF	50V 50V 50V 50V 50V 16V 16V 50V	CER.CAPACI CER.CAPACI CER.CAPACI CER.CAPACI E.CAPACITO CER.CAPACI CER.CAPACI CER.CAPACI	BS EF EN
	C612 C612 C612 C701 C702 C703 C704 C707 C708 C709	QCBB1H QCBB1H QCBB1H EETB1H QCVB1C QCVB1C QCGB1H EETBO QCZO2C EETBO	HK-221Y HK-221Y HK-221Y HM-225E CM-103Y CM-103Y HK-102 JM-477E O5-155	220PF 220PF 220PF 2.2MF 0.01MF 1000PF 470MF	50V 50V 50V 50V 16V 16V 50V	CER.CAPACI CER.CAPACI CER.CAPACI E.CAPACITO CER.CAPACI CER.CAPACI CER.CAPACI	E F E N
	C612 C612 C701 C702 C703 C704 C707 C708 C709	QCBB1+ QCBB1+ QCVB10 QCVB10 QCGB1+ EETB0. QCZ020 EETB0.	HK-221Y HK-221Y HM-225E CM-103Y HK-102 JM-477E O5-155	220PF 220PF 2.2MF 0.01MF 0.01MF 1000PF 470MF	50V 50V 50V 16V 16V 50V	CER.CAPACI CER.CAPACI E.CAPACITO CER.CAPACI CER.CAPACI CER.CAPACI	EN
	C612 C701 C702 C703 C704 C707 C708 C709	QCBB1+ EETB1+ QCVB1( QCVB1( QCGB1+ EETB0. QCZO2( EETB0.	HK-221Y HM-225E CM-103Y CM-103Y HK-102 JM-477E O5-155	220PF 2.2MF 0.01MF 0.01MF 1000PF 470MF	50V 50V 16V 16V 50V	CER.CAPACITO CER.CAPACI CER.CAPACI CER.CAPACI	
	C701 C702 C703 C704 C707 C708 C709	EETB1H QCVB1C QCVB1C QCGB1H EETBO. QCZO2C EETBO.	HM-225E CM-103Y CM-103Y HK-102 JM-477E O5-155	2.2MF 0.01MF 0.01MF 1000PF 470MF	50V 16V 16V 50V	E.CAPACITO CER.CAPACI CER.CAPACI CER.CAPACI	G
	C702 C703 C704 C707 C708 C709	QCVB10 QCVB10 QCGB11 EETB0. QCZO20 EETB0.	CM-103Y CM-103Y HK-102 JM-477E D5-155	0.01MF 0.01MF 1000PF 470MF	16V 16V 50V	CER.CAPACI CER.CAPACI CER.CAPACI	
	C703 C704 C707 C708 C709	QCVB10 QCGB1H EETBO QCZO20 EETBO	CM-103Y HK-102 JM-477E D5-155	0.01MF 1000PF 470MF	16V 50V	CER.CAPACI CER.CAPACI	
	C704 C707 C708 C709	QCGB1H EETBO QCZO20 EETBO	HK-102 JM-477E D5-155	1000PF 470MF	50V	CER. CAPACI	
	C707 C708 C709	EETBO. QCZO20 EETBO.	JM-477E 05-155	470MF			}
	C708 C709	QCZO20	05-155		6.31	E.CAPACITO	
	C709	EETBO.		14 EME			1
				11.0MC	25V	C.CAPACITO	
	C711		JM-108E	1000MF	6.30	E.CAPACITO	i
		QCHB1E	EZ-223	0.022MF		CER.CAPACI	
	C712	QCHB1	EZ-223	0.022MF	25V	CER.CAPACI	i
	C731	QCBB1H	K-221Y	220PF	50V	CER.CAPACI	1
- 1	C802	QFN82	AJ-104	0.1MF	100V	MYLAR CAPA	
1	C803	QFN82/	AJ-104	0.1MF	100V	MYLAR CAPA	
	C805	QFN82	AJ-104	0.1MF	100V	MYLAR CAPA	
	C811	EEW501	10-828E	8200MF		E.CAPACITO	i
1	C812	EEW501	10-828E	8200MF		E.CAPACITO	
	C814	QCHB1	EZ-223	0.022MF	25V	CER.CAPACI	BS
	C814	QCHB1	EZ-223	0.022MF	25V	CER.CAPACI	. EF
	C814	QCHB1	EZ-223	0.022MF	25V	CER.CAPACI	EN
- 1	C814	QCHB1	EZ-223	0.022MF	25V	CER.CAPACI	G
- 1	C815	QETB1	HM-477	470MF	50V	AL E.CAPAC	
- 1	C816	QETB1+	HM-477	470MF	50.V	AL E.CAPAC	1
1	C821	EETB1	HM-475E	4.7MF	50V	E.CAPACITO	
	C822	EETB1	HM-475E	4.7MF	50V	E.CAPACITO	1
- 1	C823	EETB18	EM-226E	22MF	25V	E.CAPACITO	
	C824	EETB18	EM-226E	22MF	25V	E.CAPACITO	
	C851	EETB18	EM-106E	10MF	25V	E.CAPACITO	ľ
- 1	C901	EETB1	AM-107E	100MF	10V	E.CAPACITO	i
1	C902	EETB1	CM-226E	22MF	16V	E.CAPACITO	
	C903	EETB1	HM-475E	4.7MF	50V	E.CAPACITO	1
	C904	EETB1	CM-226E	22MF	16V	E.CAPACITO	İ

A : SAFETY PARTS

#### RESISTORS

				1			~	1
Δ	I T E M	P.A.R.T	NUMBER	DES	C R I	PTI	O N	AREA
	R215	QRD161	J-183	18K	1/6W	CARBON	RES	
	R216	QRD161	J-183	18K	1/6W	CARBON	RES	
	R217	QRD161	J-474	470K	1/6W	CARBON	RES	
	R218	QRD161	J-474	470K	1/6W	CARBON	RES	
	R221	QVDB98	C-E15E	100K		VARIABL	E R	
	R223	QRD161	J-203	20K	1/6W	CARBON	RES	
	R224	QRD161	J-203	20K	1/6W	CARBON	RES	
	R225	QRD161	J-362	3.6K	1/6W	CARBON	RES	
	R226	QRD161	J-362	3.6K	1/6W	CARBON	RES	
	R231	QVDB98	C-E15E	100K		VARIABL	E R	
	R233	QRD161	J-472	4.7K	1/6W	CARBON	RES	
l	R234	QRD161	J-472	4.7K	1/6W	CARBON	RES	
	R235	QRD161	J-821	820	1/6W	CARBON	RES	
	R236	QRD161	J-821	820	1/6W	CARBON	RES	
	R303	QRD161	J-474	470K	1/6W	CARBON	RES	
	R304	QRD161	J-474	470K	1/6W	CARBON	RES	
	R307	QRD161	J-104	100K	1/6W	CARBON	RES	
	R308	QRD161	J-104	100K	1/6W	CARBON	RES	
Δ	R309	QRZ007	7-101	100	1/4W	FUSIBLE	RE	
Δ	R310	QRZ007	7-101	100	1/4W	FUSIBLE	RE	
	R311	QRD161	J-102	1 K	1/6W	CARBON	RES	
	R312	QRD161		1 K	1/6W	CARBON	RES	
	R318	QRD161		1 K	1/6W	CARBON		
	R321	QRD161		1 K	1/6W	CARBON	RES	
	R321	QRD161		10K	1/6W	CARBON	RES	
	R322	QRD161		1K	1/6W	CARBON		
	R322	QRD161		10K	1/6W	CARBON		
	R325	QRD161		1 M	1/6W	CARBON	RES	
	R326	QRD161		100K	1/6W	CARBON	RES	
	R327	QRD161		1 K	1/6W	CARBON	RES	
	R403	QRD161		100K	1/6W	CARBON		
ĺ	R404	QRD161		100K	1/6W	CARBON		
	R451	QRD161		16K	1/6W	CARBON		
	R452	QRD161		16K	1/6W	CARBON	RES	
	R453	QRD161		82K	1/6W	CARBON	RES	
	R454	QRD161		82K	1/6W	CARBON	RES	
	R455 R456	QRD161 QRD161		560	1/6W	CARBON	RES	
				560	1/6W	CARBON	RES	
	R457 R458	QRD161 QRD161		560 560	1/6W 1/6W	CARBON	RES :	
	R459	QRD161		220K	1/6W	CARBON		
1	R460	QRD161		220K	1/6W	CARBON		
ĺ	R501	QVPE60		500		TRIMMER		
	R502	QVPE60		500		TRIMMER		
	R503	QRD161		620	1/6W	CARBON	_	
	11,000	GIOTOI	<u> </u>	DEU		A.F.E.T.Y		V.M.A.

A : SAFETY PARTS

#### RESISTORS

#### A ITEM PART NUMBER DESCRIPTION AREA R504 QRD161J-621 620 1/6W CARBON RES QRD161J-391 QRD161J-391 1/6W CARBON RES R510 R511 390 1/6W CARDON RES QRD161J-391 ERT-D2WHL202S ERT-D2WHL202S QRD14CJ-122SX QRD14CJ-122SX 1/4W NEGATIVE T NEGATIVE T UNF.CARBON UNF.CARBON UNF.CARBON R512 1/4W R514 1.2K 1/4W QRD14CJ-4R7S QRD14CJ-4R7S 4.7 R517 Æ Æ R518 UNF.CARBON UNF.CARBON 1/4 R519 QRD14CJ-4R7S 4.7 1/4W 2.2K 2.2K 47K 47K 47K 240 R101 R102 QRD161J-222 QRD161J-222 CARBON RES 1/6W 1/6W 1/6W 1/6W CARBON CARBON R105 QRD161J-473 RES R106 QRD161J-473 RES R121 R122 CARBON CARBON QRD161J-241 1/6W RES QRD161J-241 240 1/6W RES QRD161J-153 QRD161J-153 R131 15K 1 / AW CARRON RES 1/6W CARBON RES R133 QRD161J-184 180K 1/6W CARBON RES QRD161J-184 QRD161J-103 180K CARBON RES R135 10K 1/6W CARBON RES QRD161J-103 QRD161J-104 10K 1/6W CARBON R141 100K 1/6W CARBON RES R142 QRD161J-104 100K 1/6W CARBON RES QRD161J-101 R143 100 1/6W CARBON RES R144 QRD161J-101 100 1/6W CARBON RES 1 K 1 K 5 6 K R145 QRD161J-102 1/6W CARBON RES QRD161J-102 QRD161J-563 RES RES R146 1/6W CARBON R151 1/6W CARBON R152 R153 QRD161J-563 QRD161J-563 CARBON CARBON RES 56K 56K 56K 56K 1M 1M 56K 1M 1/6W 1/6W R154 R155 QRD161J-563 1/6W 1/6W CARBON RES QRD161J-563 CARBON RES QRD161J-563 QRD161J-105 1/6W 1/6W R156 CARBON RES CARBON RES QRD161J-105 QRD161J-563 R158 1/6W CARBON RES R159 1/6W CARBON RES R160 QRD161J-563 1/6W CARBON RES QRD161J-105 1/6W CARBON RES 1M 56K 56K 330 R162 QRD161J-105 1/6W CARBON RES QRD161J-563 1/6W CARBON R164 QRD161J-563 1/6W CARBON RES QRD161J-331 1/6W CARBON RES 330 330 330 330 R166 QRD161J-331 1/6W CARBON RES QRD161J-331 1/6W CARBON RES R168 QRD161J-331 1/6W CARBON QRD161J-331 QRD161J-331 R171 R172 330 1/6W CARBON RES 330 330 330 330 R173 QRD161J-331 1/6W CARBON RES R174 QRD161J-331 CARBON RES 1/6W R175 QRD161J-331 1/6W CARBON RES QRD161J-331 R176 1/6W CARBON RES 330 330 330 330 R179 QRD161J-331 QRD161J-331 1/6W CARBON CARBON RES RES R180 1/6W QRD161J-331 QRD161J-331 CARBON CARBON R183 RES RES R184 1/6W R193 QVDB98M-EF5C 250K VARIABLE R 50K 220 220 VARIABLE R QVDB94B-E54D R201 QRD161J-221 QRD161J-221 R203 1/6W CARBON RES R204 1/6W CARBON RES R207 QRD161J-331 QRD161J-203 1/6W 1/6W CARBON RES 330 20K 20K 5.1K 5.1K 4.7 0.22 R211 CARBON RES R212 QRD161J-203 1/6W CARBON RES QRD161J-512 1/6W CARBON QRD161J-512 R214 1/6W CARBON RES QRD14CJ-4R7S UNF.CARBON 1/4W R520 ERF032K-R22 ERF032K-R22 CEM.RESIST CEM.RESIST R535 3 W 3 W R536 ERF032K-R22 RRD125J-100 GRD125J-100AM GRG022J-100AM GRG022J-100AM GRD14CJ-621SX GRD14CJ-621SX GRD14CJ-621SX GRD14CJ-621SX GRD14CJ-181S GRD14CJ-181S R537 R538 10 1/2W 1/2W UNF.CARBON UNF.CARBON 10 ⚠ OXIDE META R539 2 W R540 R541 10 2 W 620 620 620 UNF.CARBON UNF.CARBON 1/4W R542 R543 R544 UNF.CARBON 1/4W 1/4W R545 180 1/4W UNF. CARBON QRD14CJ-271S QRD14CJ-181S 270 180 1/4W 1/4W UNF.CARBON R545 Λ R546 R546 R547 QRD14CJ-271S QRD14CJ-271S 270 270 1/4W 1/4W UNF.CARBON Δ 180 180 270 10 R547 R548 QRD14CJ-181S QRD14CJ-181S 1/4W 1/4W UNF.CARBON Δ QRD14CJ-271S QRZ0077-100 QRZ0077-100 R548 R601 UNF.CARBON FUSIBLE RE 1/4W 1/4W BS Δ 10 10 R601 R601 1/4W 1/4W FIISTRI E RE EF QRZ0077-100 FUSIBLE EN Δ R601 R602 QRZ0077-100 QRZ0077-100 10 1/4 FUSIBLE RE 1/4W FUSIBLE RE 85 Λ 10 10 10 R602 R602 QRZ0077-100 QRZ0077-100 FUSIBLE RE FUSIBLE RE 1/4W EF ΕN Δ QRZ0077-100 R602 1/4W FUSIBLE RE G R603 QRZ0077-100 Δ QR70077-100 Δ R603 10 1/4W **FUSIBLE RE** F F QRZ0077-100 FUSIBLE RE R603 : ISIA:FIEITIYI IPIA RITIS

#### RESISTORS

Δ	ITEM	PART NUMBER	D E	S C R I	PTION	ARE
Δ	R603	QRZ0077-100	10	1/4W	FUSIBLE RE	G
Δ	R604	QRZ0077-100	10	1/4W	FUSIBLE RE	BS
Δ	R604	QRZ0077-100	10	1/4W	FUSIBLE RE	EF
Δ	R604	QRZ0077-100	10	1/4W	FUSIBLE RE	EN
Δ	R604	QRZ0077-100	10	1/4W	FUSIBLE RE	G
Δ	R611	QRG022J-331AM	330	2 W	OXIDE META	
Δ.	R612	QRG022J-331AM	330	2 W	OXIDE META	
	R701	QRD161J-104	100K	1/6W	CARBON RES	
	R702	QRD161J-103	10K	1/6W	CARBON RES	
	R703	QRD161J-102	1 K	1/6W	CARBON RES	
	R704	QRD161J-223	22K	1/6W	CARBON RES	
	R705	QRD161J-473	47K	1/6W	CARBON RES	
	R706	QRD161J-473	47K	1/6W	CARBON RES	
Ì	R707	QRD161J-331	330	1/6W	CARBON RES	
	R708	QRD161J-331	330	1/6W	CARBON RES	
	R709	QRD161J-221	220	1/6W	CARBON RES	
	R710	QRD161J-103	10K	1/6W	CARBON RES	
i	R711	QRD161J-103	10K	1/6W	CARBON RES	
	R712	QRD161J-103	10K	1/6W	CARBON RES	
	R713	QRD161J-223	22K	1/6W	CARBON RES	
ł	R714	QRD161J-223	22K	1/6W	CARBON RES	
- 1	R721	QRD161J-221	220	1/6W	CARBON RES	
- 1	R722	QRD161J-221	220	1/6W	CARBON RES	
i	R723	QRD161J-221	220	1/6W	CARBON RES	
	R724	QRD161J-221	220	1/6W	CARBON RES	
į	R725	QRD161J-221	220	1/6W	CARBON RES	
	R726	QRD161J-331	330	1/6W	CARBON RES	
	R731	QRD161J-221	220	1/6W	CARBON RES	
	R732	QRD161J-471	470	1/6W	CARBON RES	
Δ.	R815	QRD14CJ-100SX	10	1/4W	UNF.CARBON	
Δ.	R816	QRD14CJ-100SX	10	1/4W	UNF.CARBON	
Δ.	R821	QRZ0077-100	10	1/4W	FUSIBLE RE	
Δ	R822	QRZ0077-100	10	1/4W	FUSIBLE RE	
Δ	R823   R824	QRV144F-1002	10K	1/4W	CONST.META	
Δ	R851	QRV144F-1002	10K	1/4W	CONST.META	
- A	R852	QRZ0077-100 QRD161J-153	10 15K	1/4W	FUSIBLE RE	
	R901	QRD161J-272	2.7K	1/6W	CARBON RES	
	R902	QRD161J-272	2.7K	1/6W 1/6W	CARBON RES	
	R903	QRD161J-153	15K	1/6W	CARBON RES	
	R904	QRD161J-153	15K	1/6W	CARBON RES CARBON RES	
- 1	R905	QRD161J-223	22K	1/6W	CARBON RES	
- 1	R906	QRD161J-223	22K	1/6W	CARBON RES	
	R907	QRD161J-103	10K	1/6W	CARBON RES	
-	R908	QRD161J-332YTT	3.3K	1/6W	CARBON RES	
	R909	QRD161J-473	47K	1/6W	CARBON RES	
	R911	QRD161J-104	100K	1/6W	CARBON RES	
	R912	QRD161J-823	82K	1/6W	CARBON RES	
ļ	R915	QRD161J-103	10K	1/6W	CARBON RES	
	R916	QRD161J-103	10K	1/6W	CARBON RES	
	R917	QRD161J-204	200K	1/6W	CARBON RES	
ļ	R919	QRD161J-822	8.2K	1/6W	CARBON RES	
-	R920	QRD161J-153	15K	1/6W	CARBON RES	
Δ	R921	QRD125J-471	470	1/2W	UNF.CARBON	
2	R921	QRG022J-821AM	820	2W	OXIDE META	
Δ	R922	QRD125J-471	470	1/2W	UNF.CARBON	~~~~
	Ì		1		ļ	

#### OTHERS

Δ	I.T.E.M	PART NUMBE	R DESCRIPTION	AREA
		QXTF500-015	SHRINK TUBE	
		E70945-H35	HEAT SINK	
		GBSG3008CC	TAPPING SCR	ł
ł		QWE692-16RR	VINYL WIRE	
	l	QWE694-16RR	VINYL WIRE	
	1	QWE350-12RR	VINYL WIRE	
		QWE690-19RR	VINYL WIRE	1
	1	QWE690-16RR	VINYL WIRE	
1		QWE691-16RR	VINYL WIRE	
		QWE352-16RR	VINYL WIRE	
		QWE356-16RR	VINYL WIRE	i
İ	ļ	EWT011-157	TERMINAL WI	
	J101	EMNOOTV-208A	PIN JACK 2 PIN	
	J102		JACK BOARD 6 PIN IACK	
	J103	EMNOOTV-404A	JACK BOARD 4 PIN JACK	
1	J104	EMNOOTV-404A	JACK BOARD 4 PIN JACK	
ĺ	J191	VMC0194-S08	CONNECT TER 8 PIN	}
	J192	VMC0194-S05	FEMALE CONN 5 PIN	
	J601	EMBOOTV-801A	TERMINAL SPK.	BS
	J601	EMBOOTV-801B	TERMINAL SPK.	EF
	J601	EMBOOTV-801B	TERMINAL SPK.	EN
	J601	EMBOOTV-801A	TERMINAL SPK.	G
ı	J601	EMBOOTV-801B	TERMINAL SPK.	U
	J601	EMBOOTV-801B	TERMINAL SPK.	UT
L	J611	QMS6302-131	HEADPHONE J	

A : SIA FIETY PIA RITIS

#### OTHERS

Δ	ITEM	PART NUMBE	RDESCRIPTION	AREA
	J701	EMV7123-021	CONNECT TER 21 PIN	
	J721	EMV7123-021	CONNECTOR 21 PIN	
	J731	QMS3501-020	PIN JACK	
	J751	EMV7122-103	CONNECT TER 3 PIN	
	J752	EMV7122-004	CONNECT TER 4 PIN	
	L501	EQL0001-1R0	INDUCTOR	
1	L502	E0L0001-1R0	INDUCTOR	
1	P191	VMC0194-P08	CONNECT TER 8 PIN	
		VMC0194-P05	MALE CONNEC 5 PIN	
		EMV5109-006A	CONNECT TER 6 PIN	
l	P202	EMV5109-006A	CONNECT TER 6 PIN	
1	P207	EMV5103-002B	MALE CONNEC 2 PIN	
1	P208	EMV5103-002A	MALE CONNEC 2 PIN	
		EMV5138-006	CONNECT TER 6 PIN	
ļ		EMV5109-003A	MALE CONNEC 3 PIN	
		QSP2001-E04A	PUSH SWITCH TEPA 2 MONITOR	
	S201	QSP2001-E02A	PUSH SWITCH SOURSE DIRECT	
		QSP2001-E03A	PUSH SWITCH LOUDNESS	
		QST4261-E06	PUSH SWITCH SPK.	******
l		QSR211C-E01	ROTARY SWIT SOURSE SELECTOR	
ſ		EWS296-1915	SOCKET WIRE 6 PIN	
		EWS296-1915	SOCKET WIRE 6 PIN	
		EWS286-004	SOCKET WIRE 6 PIN	
		EWS293-0118	SOCKET WIRE 3 PIN	
	EP401	EMZ4002-001Z	EARTH PLATE	
	RY901	ESK7D24-2120	RELAY	
	XT701	ECX0060-000EM	CERAMIC RES	

: SIA FIETIY P RITIS

#### ■ENG-012 A Pre. Driver PC Board Ass'y

#### RESISTORS

	. I C M	PART	NUMBER	IDE:	SCRI	РТІО	N AREA
	R405	QRD161	J-202	2 K	1/6W	CARBON R	ES
	R406	QRD161	J-202	2 K	1/6W	CARBON R	ES.
	R407	QRD161	J-202	2K	1/6W	CARBON R	ES
	R408	QRD161	J-202	2 K	1/6W	CARBON R	ES
	R409	QRD161	J-912	9.1K	1/6W	CARBON R	ESİ
	R410	QRD161	J-912	9.1K	1/6W	CARBON R	ES
- 1	R411	QRD161	J-101	100	1/6W	CARBON R	ES
	R412	QRD161	J-101	100	1/6W	CARBON R	ES
Δ	R413	QRD14C	J-1215X	120	1/4₩	UNF.CARB	ON
◮▮	R414	QRD14C	J-121SX	120	1/4W	UNF.CARB	on l
	R415	QRD161	J-302	3K	1/6W	CARBON R	ES
	R416	QRD161	J-302	3K	1/6W	CARBON R	ES
	R417	QRD161	J-302	3K	1/6W	CARBON R	ES
- 1	R418	QRD161	J-302	зк	1/6W	CARBON R	ES
١	R419	QRD161	J-391	390	1/6W	CARBON R	ES
1	R420	QRD161	J-391	390	1/6W	CARBON R	ES
1	R421	QRD161	J-152	1.5K	1/6W	CARBON R	
- 1	R422	QRD161	J-152	1.5K	1/6W	CARBON R	
- 1	R423	QRD161	J-333	33K	1/6W	CARBON RI	
-	R424	QRD161	J-333	33K	1/6W	CARBON RI	
	R425	QRD161	J-333	33K	1/6W	CARBON RI	
ı	R426	QRD161		33K	1/6W		ES
- 1	R427	QRD161		1.5K	1/6W		s l
- 1	R428	QRD161		1.5K	1/6W		s
- 1	R429	QRD161		390	1/6W		s
	R430	QRD161		390	1/6W	CARBON RE	
					2.00		

A : SAFETY PARTS

#### TRANSISTORS

Q401   2SC2240(GR,BL)   SI.TRANSIST TOSHIBA   Q402   2SC2240(GR,BL)   SI.TRANSIST TOSHIBA   Q403   2SC2240(GR,BL)   SI.TRANSIST TOSHIBA   Q404   2SC2240(GR,BL)   SI.TRANSIST TOSHIBA   Q405   2SA970(GR)   SI.TRANSIST TOSHIBA   Q406   2SA970(GR)   SI.TRANSIST TOSHIBA   Q407   2SA970(GR)   SI.TRANSIST TOSHIBA   Q408   2SA970(GR)   SI.TRANSIST TOSHIBA   Q409   2SA933LN(R,S)   SI.TRANSIST TOSHIBA   Q410   2SA933LN(R,S)   SI.TRANSIST TOSHIBA   Q411   2SC2240(GR,BL)   SI.TRANSIST TOSHIBA   Q412   2SC240(GR,BL)   SI.TRANSIST TOSHIBA   Q412   Q412   Q412   Q412   Q412   Q412   Q412	Δ	ITEM	PART	NUME	BER	D	E :	s (	2	R	ī	P	т	1	0	N	А	RE	Α
		Q402 Q403 Q404 Q405 Q406 Q407 Q408 Q409 Q410 Q411	2SC22 2SC22 2SC22 2SA97 2SA97 2SA97 2SA97 2SA93 2SA93 2SC22	40(GR) 40(GR) 0(GR) 0(GR) 0(GR) 0(GR) 3LN(R) 3LN(R)	BL) SBL) SS SS SS SS SS SS SS SS SS SS SS SS SS	SI. SI. SI. SI.	TRA TRA TRA TRA TRA TRA	NS NS NS NS NS NS NS NS NS NS NS NS NS N	15 15 15 15 15 15 15	T	TO TO TO TO TO RO RO	SH SH SH SH SH SH SH	IB IB IB IB IB	A A A A A A					

A ::SAFETY PARTS

#### DIODES

Δ	ITEM	PART	NUMBER	D	Е	s	С	R	I	P	т	1	0	N	AREA
	D411 D412	155119 155119		SI. SI.											

A SAFETY PARTS

#### CAPACITORS

Δ	I T E M	PART	NUMBEI	DES	C R	IPTION	AREA
	C405	QCS31		100PF	50V	CERAMIC	
	C406	QCS31	J-101Z	100PF	50V	CERAMIC	
	C411	QFLC1	IJ-332ZM	3300PF	50V	METAL.MYLA	
	C412	QFLC1	IJ-3322M	3300PF	50V	METAL.MYLA	ŀ
	C413	QCS21	IJ-220A	22PF	50V	CERAMIC	l
	C414	QCSZ1	1J-220A	22PF	50V	CERAMIC	
	C415	QCS311	IJ-3302	33PF	50V	CERAMIC	
	C416	QCS31	IJ-3302	33PF	50V	CERAMIC	
	C417	QCS31	IJ-330Z	33PF	50V	CERAMIC	
	C418	QCS31	IJ-330Z	33PF	50V	CERAMIC	

A :: SAFETY PARTS

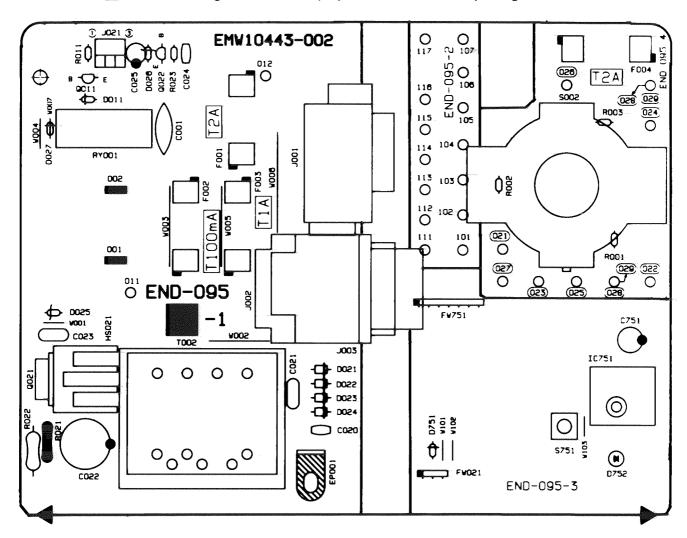
#### OTHERS

Δ	ІТЕМ	PART	NUMBER	D	Е	s	С	R	1	Р	T	0	N	AREA
	P401	EMV511	12-015R	CON	IN E	СТ	0 R	15	Pii	N.				

A : SAFETY PARTS

#### **■ END-095** Power Primary PC Board Ass'y

Note: END-095 varies according to the areas employed. See note (1) when placing an order.



Note (1)

***************************************		
PC Board Ass'y	Version	Designated Areas
END-095 A	G	Germany
END-095 B	EF	Continental Europe
END-095 C	EN	Scandinavia
END-095 D	BS	the U.K.
END-095 E	U UT	Universal Type Taiwan

TRANSISTORS

Δ	ІТЕМ	PART	NUMBE	E R	D	E	s	С	R	1	Р	Т	I	0	N	AREA
	Q011 Q021 Q021 Q022	2SD194	50(Q,R) 54(J,K) 54(J,K) 55(0,Y)		SI. SI. SI.	TR	AN	SI	ST ST	R	HC	1	I A			U
Δ :: SiA(F(E/T)Y) (PIA(R)										₹Ti\$						

I. C. S.

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC751	GP1U571X	INFRARED DE SHARP	

A : SAFETY PARTS

DIODES

Δ	I TEM	PART NUMBER	DESCRIPTION	AREA
<b>AAAA</b>	D011 D011	MT712JC MT712JC MT712JC MT712JC 1SS119 1SS119 ERA15-02L19 ERA15-02L19 ERA15-02L19 HRA15-02L19	ZENER DIODE ROHM ZENER DIODE ROHM ZENER DIODE ROHM ZENER DIODE ROHM SI.DIODE SI.DIODE SI.DIODE KYOUDOU SI.DIODE KYOUDOU SI.DIODE KYOUDOU SI.DIODE KYOUDOU SI.DIODE KYOUDOU ZENER DIODE ROHM	BS EF EN G U
	D025 D026 D027 D751	MTZ12JC	ZENER DIODE ROHM ZENER DIODE NEC SI.DIODE SI.DIODE	UT BS
	D752 D752 D752 D752 D752	SLA-580LT3F SLR-342VC3F SLR-342VC3F SLR-342VC3F SLR-342VC3F	L.E.D. ROHM L.E.D. ROHM L.E.D. ROHM L.E.D. ROHM L.E.D. ROHM	BS EF EN G U
	0752	SLR-342VC3F	A : (S:A:F:E:T:Y: :P!A:E	UT

2-14 (No. 20492)

#### CAPACITORS

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Δ	ITEM	PART NUMBER	DES	C R I	PTION	AREA
Δ	C001	QCZ9050-472ABS	4700PF		CER.CAPACI	BS
Δ Δ	C001	QCZ9050-472A	4700PF		CER.CAPACI	EF
Δ	C001	QCZ9050-472A	4700PF		CER.CAPACI	ĒΝ
Δ	C001	QCZ9050-472A	4700PF		CER.CAPACI	G
Δ	C001	QCZ9050-472A	4700PF		CER.CAPACI	Ü
Δ	C001	QCZ9050-472A	4700PF		CER.CAPACI	UΤ
_	C020	QCHB1EZ-223	0.022MF	25.V	CER.CAPACI	٠,
	C021	QFN81HJ-473	0.047MF	50V	METAL MYLA	BS
ł	C021	QFN81HJ-473	0.047MF	50V	METAL MYLA	EF
1	C021	QFN81HJ-473	0.047MF	50V	METAL.MYLA	EN
	C021	QFN81HJ-473	0.047MF	50V	METAL MYLA	G
	C021	QFN32AJ-473Z	0.047MF		MYLAR	ŭ
	C021	QFN32AJ-473Z	0.047MF	100V	MYLAR	ŬТ
	C022	EETB1EM-477E	470MF	25V	E.CAPACITO	BS
1	C022	EETB1EM-477E	470MF	25V	E.CAPACITO	EF
	C022	EETB1EM-477E	470MF	25V	E.CAPACITO	EN
1	C022	EETB1EM-477E	470MF	25V	E.CAPACITO	G
}	C022	EETB1JM-477E	470MF	63V	E.CAPACITO	ŭ l
1	C022	EETB1JM-477E	470MF	63V	E.CAPACITO	ŪΤ
	C023	QFN82AJ-103	0.01MF	100V	MYLAR	u l
1	C023	QFN82AJ-103	0.01MF	100V	MYLAR	ŪΤ
	C024	QCVB1CM-103Y	0.01MF	16V	CERAMIC	
1	C025	EETB1CM-476E	47MF	16V	E.CAPACITO	- 1
	C751	QERSOJM-107	100MF	6.3V	AL E.CAPAC	
1	1 1					

A : (SIAIF)E(T)Y (PIAIR)T(S

#### RESISTORS

Δ	ITEM	PART NUMBE	R D E	SCRI	PTION	AREA
<b>1 1 1 1 1 1 1 1 1 1</b>	R001 R002 R002 R002 R003 R011 R021 R021 R021 R021 R022 R022 R022	QRD161J-105 QRD161J-105 QRD161J-105 QRD161J-105 QRD161J-105 QRD161J-105 QRD161J-102 QRZ0077-120 QRZ0077-120 QRZ0077-120 QRZ0077-100 QRZ0077-100 QRZ0077-100 QRZ0077-100 QRG012J-472A QRG012J-472A QRG012J-472A	1 M 1 M 1 M 1 M 1 M 1 M 1 M 1 M 1 M 1 M	1/6W 1/6W 1/6W 1/6W 1/6W 1/6W 1/6W 1/4W 1/4W 1/4W 1/4W 1/4W 1/4W 1/4W 1/4	CARBON RES CARBON RES CARBON RES CARBON RES CARBON RES CARBON RES CARBON RES CARBON RES CARBON RES CARBON RES CARBON RES CARBON RES CARBON RES CARBON RES CARBON RES CARBON RES CARBON RES	U UT U UT U UT U UT U UT U UT U UT U U

Δ : S'AFEETY P'ARTS.

#### OTHERS

		T	T
<b>△</b> FTE	PART NUMBER	DESCARIPTION	AREA
	EMG7331-002	FEEDER CLAM	l
	EMG7331-002U QWE881-17RRBS	CONTACT CLI	
- 1	QWE886-17RRBS	PIN WIRE PIN WIRE	BS BS
1	QWE881-17RR	PIN WIRE	E F
	QWE888-17RR	VINYL WIRE	EF
	QWE881-17RR	PIN WIRE	EN
1	QWE888-17RR	VINYL WIRE	EN
1	QWE881-17RR	PIN WIRE	G
	QWE888-17RR	VINYL WIRE	G
1	E70945-H40B SBSG3008CC	HEAT SINK TAPPING SCR	U
	E67132-T4R0	FUSE LABEL	U
<b>∆</b> 5002	QSR0085-018	SELECT SWIT VOLTAGE SELECTOR	Ü
<u> </u>	QWE880-18RR	WIRE	Ű
	QWE889-18RR	WIRE	U
	QWE881-28RR	WIRE	υ
	QWE882-28RR	WIRE	υ
	QWE883-36RR QWE884-32RR	WIRE WIRE	U
	QWE886-28RR	WIRE	Ü
	QWE886-08RR	WIRE	U
	QWE888-40RR	WIRE	Ü
	E70945-H40B	HEAT SINK	UT
	SBSG3008CC	TAPPING SCR	UT
	E67132-T4R0	FUSE LABEL	UΤ
<b>∆</b> 5002	QSR0085-018	SELECT SWIT VOLTAGE SELECTOR	UT
	QWE880-18RR QWE889-18RR	WIRE WIRE	UT UT
1	QWE881-28RR	WIRE	UT
	QWE882-28RR	WIRE	υT
1	QWE883-36RR	WIRE	UΤ
	QWE884-32RR	WIRE	UΤ
1	QWE886-28RR	WIRE	UT
	QWE886-08RR QWE888-40RR	WIRE WIRE	UT
001	EMZ4001-001	ITAB	UΤ
0.02	EMZ4001-001	TAB	
∆ J001	-QMCA002-E01S	AC OUTLET	U
∆ J001	QMCAOO2-E01S	AC OUTLET	UT
▼ 1005	QMCAOO4-E01G	AC OUTLET	E F
V 1005	QMCA004-E01G QMCA004-E01G	AC OUTLET	E N
V 1003	QMCA004-E01G	AC OUTLET	G BS
J021	EMV7122-103	CONNECT TER	03
S751	ESP0001-018	PUSH SWITCH POWER SW	
<b>∆</b> T002	ETP1000-41EABS	POWER TRASN	BS
<b>№</b> Т002	ETP1000-41EA	POWER TRASN	EF
<b>№</b> 1002	ETP1000-41EA	POWER TRASN	EN
Δ   T002	ETP1000-41EA ETP1000-41ZB	POWER TRASN POWER TRASN	G
V 1005	ETP1000-412B	POWER TRASN	UΤ
EP001	EMZ4002-001Z	EARTH PLATE	
FW021	EWR33B-30LST	FLAT WIRE A 3 PIN	
FW751	EWR378-35LST	FLAT WIRE A 7 PIN	
A RY001	ESK1012-118J1BS		BS
A RY001	ESK1D12-118J1	RELAY	EF
A RY001 A RY001	ESK1D12-118J1	RELAY	E N
Δ RY001	ESK1D12-118J1 ESK1D12-118J1	RELAY	11
A RY001	ESK1D12-118J1	RELAY	ŬΤ
44			-
		$g_{\lambda} := S(\Lambda Y + U \cap Y) - P(\lambda)^{-1}$	

**西 iSAYETY P**志り、S

#### **Accessories List**

Symbol No. M 3 M M

$\triangle$	Item	Part Number	Part Name	Q'ty	Description	Area
	1	E30580-2154ABS	INSTRUCTION BOOK	1		BS
		E30580-2154A	INSTRUCTION BOOK	1		EF
		E30580-2155A	INSTRUCTION BOOK	1		EF
		E30580-2155A	INSTRUCTION BOOK	1	·	EN
		E30580-2156A	INSTRUCTION BOOK	1		EN
		E30580-2155A	INSTRUCTION BOOK	1		G
		E30580-2154A	INSTRUCTION BOOK	1		U
İ .		E30580-2155A	INSTRUCTION BOOK	1		U
		E30580-2154A	INSTRUCTION BOOK	1		UT
		E30580-2155A	INSTRUCTION BOOK	1		UT
	2	BT20060	WARRANTY CARD	1		BS
i	3	BT20066A	WARRANTY CARD	1		BS
	4	BT-20134	WARRANTY CARD	1		G
	5	E43486-340A	SAFETY SHEET	1		BS
	6	E43486-371A	INSTRUCTION SHEET	1		BS
	7	EMC0202-001BS	AC PLUG	1		B\$
$ \Lambda $	8	ENZ2203-001	ADAPTOR PLUG	1		U
$ \Delta $		ENZ2203-001	ADAPTOR PLUG	1		UT
	9	RM-SA5U	REMOCON UNIT	1		
	10	UM-4NJ-2PSA	DRY BATTERY	1 1		
	11	QPGA025-03505B	POLY BAG	1		
	12	RM-SX505BATC	BATTERY COVER	1 1		

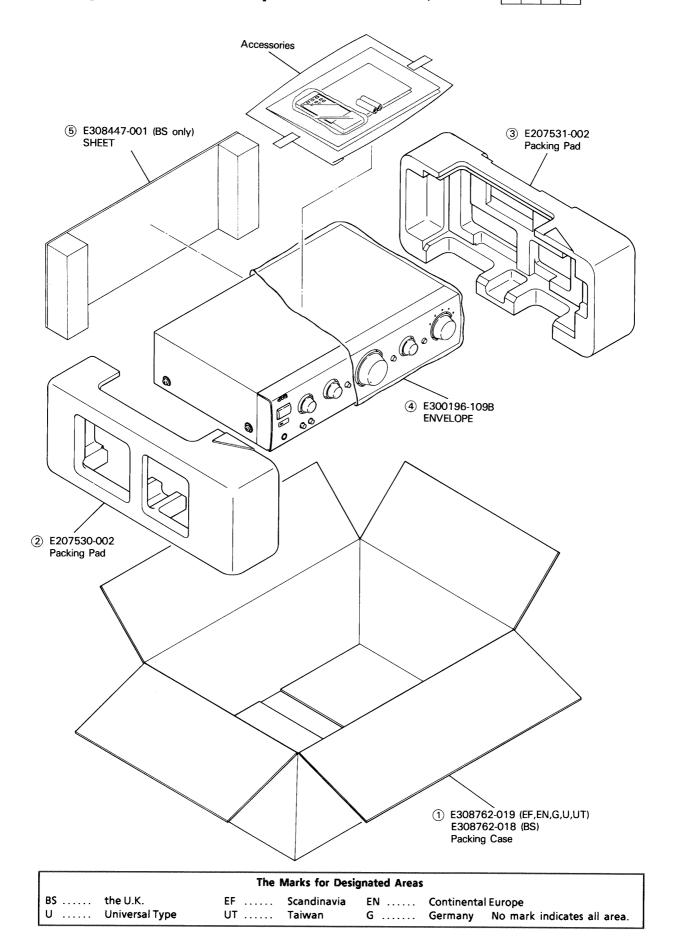
**ASAFETY PARTS** 

The Marks for Designated Areas

G ... Germany
EF .. Continental Europe U ... Universal Type BS .. the U.K. UT ... Taiwan De EN .. Scandinavia

No mark indicates all area.

#### Packing Materials and part Numbers Symbol No. M 4 M M





VICTOR COMPANY OF JAPAN, LIMITED

AUDIO DIVISION, YAMATO PLANT, 1644, SHIMOTSURUMA, YAMATO-SHI, KANAGAWA-KEN, 242, JAPAN